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ABSTRACT

A survey of University of California faculty time-use was undertaken as a replacement for less accurate methods of estimating faculty time-use. After sections introducing the study and presenting highlights from the report, focus is on the methodology. Particulars such as the sampling procedures and measures used to evaluate data quality are discussed. Calculation methods are explained, and the activities of both full-time and part-time faculty are reported. Among major findings of the study were that full-time faculty members averaged over 62 hours a week on university-related activities of all types including: 27.1 hours on instructional activities, 22.9 hours on research/creative activities, 7.5 hours in university service, and 4.9 hours in professional activities/public service. Appendices detail the estimating procedure and the frequency distributions of responses on key variables, and provide notes on the methodology and illustrative field materials used in data collection. (PHR)

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ED179133

UNIVERSITY OF CALIFORNIA
FACULTY TIME-USE STUDY
Report for 1977-1978 Academic Year

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September, 1978

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SECTION I

Introductory Comments

I. INTRODUCTORY COMMENTS

In the summer of 1977, the Academic Council and the Systemwide Administration of the University of California agreed jointly to sponsor a study of faculty time-use by the Institute for Research in Social Behavior (an independent non-profit research organization not connected with the University). This survey was undertaken as a replacement for less accurate methods of estimating faculty time-use formerly used by the University.

The study was conducted during the 1977-78 academic year and this report presents the results. Although the Council and the Administration have participated in all decisions about the study, the independence of the Institute in the conduct of the research and the writing of this report was in no way compromised. The faculty was represented throughout by the Academic Senate Special Committee on Faculty Workload, whose members were appointed by the Academic Council, then chaired by William Fretter. The Special Committee was chaired by Professor Randolph Wedding (Riverside) and included Professors Jackson Burgess (Berkeley), Sylvia Lane (Davis), Richard Sklar (Los Angeles), and Dean Lyman Porter (Irvine). Under John Galbraith's chairmanship, the Academic Council continued its support for this project.

The Administration was represented by Donald C. Swain, Academic Vice President; Richard Scheffer, Assistant to the Academic Vice President; Verna Osborn of the Office of the Assistant Vice President - External Budgetary and Educational Relations; Richard West, Director of Information Management; and Greg Kast, Manager of Analytical Information Systems.

In the service of the stated goals of the study and the best interests of all parties, the Institute has employed rigorous sampling procedures and standardized measuring instruments to obtain accurate, generalizable and comprehensive information on the time devoted to all activities individuals perform that are in any way related to their professional duties as members of the University of California faculty. However, the focus of the study is primarily on instructional activities.

In keeping with standard survey procedures, strict controls were used to ensure the confidentiality of the completed questionnaires which were returned to and kept on file at the Institute. The link between respondent names and serial numbers on the questionnaires, originally kept in a locked file needed initially for methodological purposes, has been destroyed. To avoid all conflicts of interest and to protect the integrity of the study, no one working on the survey at the Institute was in the employ of the University or closely related to University employees. Both of the technical consultants retained by the Institute for this study came from other universities: Herbert Hyman, Crowell University Professor at Wesleyan University (Connecticut), who served as the methodological consultant, and Ira Cisin, Director of the Social Research Group at The George Washington University (Washington, D.C.), who served as the statistical consultant.

The Institute wishes to express its appreciation to all those faculty who have taken the time to participate in this study and to the members of the Special Committee who generously and conscientiously served as advisors

to the project. Thanks are also extended to those representatives of the Administration who provided us with necessary information and guidance.

* * *

A preliminary report was prepared in January 1978, based on data collected during three weeks of the Fall Quarter. Much of the following text in this Final Report relating to the basic design of the instruments and sample, and the computation of estimates and confidence intervals, is adapted from the preliminary report.

II. HIGHLIGHTS OF THE STUDY FINDINGS

During the instructional weeks of the 1977-78 academic year, full-time regular faculty members (who comprise over 98 percent of the regular faculty sampled) spent:

An average of over 62 hours a week on University-related activities of all types. This total includes:

- 27.1 hours on instructional activities;
- 22.9 hours on research/creative activities;
- 7.5 hours in university service;
- 4.9 hours in professional activities/public service.

Some hours shown above for non-instructional activities also contributed to instructional activities. Full-time regular faculty members spent an average of 7.4 hours a week in non-instructional activities that, as a by-product, contributed to instructional activities.

Those full-time regular faculty members paid only from "Instruction and Research" funds (who comprise over 80 percent of the regular faculty sampled) spent:

Over 28 hours a week on instructional activities of all kinds. This figure includes approximately 13 hours of direct student contact which consists of:

- 5.9 hours teaching regularly scheduled courses;
- 3.5 hours on student advising;
- 2.4 hours on supervising independent/special study;
- 0.8 hours on non-credit instruction;
- 0.3 hours participating in oral examinations.

In addition to direct student contact, an average of 10.5 hours a week were spent on course preparation and 5.0 hours were devoted to "other instructional activities" such as grading papers and exams, reading dissertations, etc.*

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* The figures for these regular faculty with 100 percent Instruction and Research Full-Time Equivalents (I&R FTEs) are based on data for the Winter and Spring Quarters only. In these quarters, the questionnaire asked for more detailed information on instructional activities. However, on categories which were identical in the questionnaire for all three quarters, the Winter-Spring estimates are so similar to those for the Fall Quarter that we are confident that the Winter-Spring estimates provide a correct picture of the 1977-78 academic year.

Upper division courses consumed nearly half (46%) of the time spent teaching scheduled courses. About a third of course instruction time went towards teaching graduate level courses, and about a fifth toward lower division.

Almost three-quarters (74%) of the time these faculty spent supervising independent/special study was devoted to graduate level students.

* * *

For ease in presentation, these highlights include only findings for full-time regular faculty. In the report, estimates for instructional activities are shown for part-time and full-time regular faculty combined, per "Instruction and Research" (I&R) FTE. Also omitted from these highlights are the findings for the small sample of irregular faculty.

III. RESEARCH DESIGN AND INSTRUMENT DEVELOPMENT

A. RATIONALE

Most studies of faculty time-use -- including past studies by the University of California -- have followed a common pattern. With minor variations, the typical pattern has followed this outline:

An official inquiry from the Administration, sent to all faculty at one point far along in or at the end of a quarter or semester or year, requests each identified or easily identifiable individual to think back over the entire span and estimate the hours spent in an average week on various instructional duties and sometimes on other professional activities as well, and to report that information to his employer on the form provided.

It is self-evident that this procedure imposes a heavy burden on the faculty member's memory. A classic justification of such inquiry is that it has an "immediate and direct value long before any data have been analyzed" since, as the writer of an authoritative manual of procedure continues, "It requires the individual staff member to take stock and think out how he spent his time during the term being studied. Many faculty

members have never stopped to determine exactly where their time goes."* (Emphasis added.) That the exercise itself is a valuable learning experience is vividly conveyed, but the vulnerability of the research procedure becomes equally clear.

The risks of error in recalling remote and vague events are compounded by the mental arithmetic required. First the conscientious faculty member must try to array in his mind the time he remembers spending on the discrete activities in each of the weeks included in the period -- activities which often are highly variable over a quarter. Then he must somehow either arrive at a total and compute an average, or select or conjure up

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* John E. Stecklein, How to Measure Faculty Work Load, (American Council on Education, 1961) pp. 1-2. In a recent historical essay, Stecklein remarks, "Changes that have occurred over the past two decades in approaches used to measure faculty workload represent differences more in degree than in kind.... The techniques have not changed -- at least institutions were then using nearly all of the techniques currently being employed; the problems with definitions have not changed; and there seems to be little lessening of skepticism about the accuracy of faculty estimates of how they spend their time." Given the intractable problems of the method that has prevailed, the skepticism, understandably, has persisted. And some of the newer methods Stecklein mentions implicate or even aggravate the basic problems, e.g., a method in which the Department Chairman reports retrospectively on the activities of each of his faculty, instead of the individuals reporting on their own activities. John E. Stecklein, "Approaches to Measuring Work Load over the Past Two Decades," in James I. Doi, ed., Assessing Faculty Effort, (Jossey Bass, 1974), p. 1.

Although our procedures were radically different, an open-ended item at the end of our instrument solicited lengthy comments on the faculty's work patterns. These comments served various purposes described later in this report, but also documented that individuals often had little awareness of the many ways in which their time normally is spent. For example, one respondent who was reporting his activities for a Friday, normally his "recovery day" when "I thought of myself as having done very little..." remarked, "I was amazed to add up and find that I had actually worked more than 'full time' while carrying around an image that I hadn't done much...." Another said, "It was a revelation to me to discover the amount of time I spend in counseling graduate students."

an "average" week and report that particular estimate.* Memory may play tricks on the most honest of faculty and often works in the service of needs: the need to see oneself in a good light, let alone show oneself to the administration in a good light. No wonder that in one study the total workload ranged as high as 120 hours per week. Deservedly, that sleepless Midwestern professor of 1950 has remained immortal in the literature.**

We sought a method that would not require the recall of remote events, which would impose only minimal and manageable burdens on the individual's memory of very recent events, and yet which would yield an accurate estimate of the average weekly workload over all instructional weeks of the academic year. Our aim was to eliminate the process of "mental averaging", thereby protecting the findings from a major source of error. To do this we developed the following design: each faculty member was assigned the

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* A thoughtful review of major problems in measuring faculty activity in the usual study describes the insidious ways in which memory processes and mental arithmetic may distort estimates of average activity over a long time span. "If this period of time is as long as several weeks, then peak activities become more significant in recall but the time relationship of one peak activity to another fades. Therefore if a faculty member is asked to estimate and record his average work week over the previous academic term, those peak periods for each type of activity are most apt to be remembered and the estimate of an average work week may tend to be inflated. For example, teaching activity may be most intense during the first, sixth and twelfth weeks of the term; research during the second, third and seventh; administrative or committee activities, the fourth and ninth. Unfortunately, in recall the tendency will be to blend all of these peaks into one average week." Leonard C. Romney, Faculty Activity Analysis: Overview and Major Issues (Boulder, Colorado: National Center for Higher Education Management Systems, Western Interstate Commission for Higher Education, Technical Report No. 24, December, 1971), pp. 39-40.

** Robert J. Keller and Margaret G. Abernathy, The 1950-51 Survey of Faculty Activities at the University of Minnesota (Bureau of Institutional Research, University of Minnesota, 1951), quoted in Stecklein, How to Measure..., op. cit., p. 16.

relatively simple task of recording his activities during a specified brief period. Most respondents were assigned a 48-hour period of two consecutive designated weekdays; a smaller group of respondents was assigned a 72-hour period consisting of a specified weekend plus an adjacent Friday or Monday.

The basic instruments were: (1) a diary form for keeping a current, running record of activity throughout the period; (2) a questionnaire on which summaries of activity and answers to a few essential questions would be entered; and (3) supplementary materials that defined and illustrated various categories of activity, clarified ambiguities, and described larger features of the study so as to encourage candor and cooperation. Of all these materials, only the questionnaire was to be returned to us. Illustrations of the instruments are presented in Appendix D.

Since each respondent included in this study reported on only one brief unit of time, it is clear that no mental averaging was involved. This is in contrast to most studies where the respondent reports about a series of time-units and must estimate his "average" activity per unit of time.*

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* In theory, in the conventional study the process of averaging might involve no mental arithmetic and "guesstimates", the faculty member actually adding up from his usual records in a daily desk calendar or diary which he routinely keeps, the total time devoted over a quarter to various activities and then computing the exact average. Apart from the fact that many faculty do not keep detailed calendars, that those who do are unlikely to make entries for such activities as preparing their lectures, that their entries normally would not indicate the duration of the activity, and that they are not encouraged in the usual inquiry to consult their records, it is obvious that the laboriousness of going back over such entries for a long period of time would deter even the highly conscientious from engaging in such actual arithmetic. "Mental arithmetic" is the likely procedure to be employed.

The objective of our study, however, like other studies, was to obtain findings generalizable to all instructional weeks, in effect an average picture, rather than findings that apply only to the particular two days assigned the individual faculty member, which is a small and possibly peculiar segment of time. The average was obtained by feeding the data from all the subsamples into the computer and calculating the averages for various activities (the precise formulas and mode of calculation are described in Appendix A).

This research design could have been applied in various ways. The members of each subsample, for example, could have been asked to record activities for one particular entire week. However, that would have been a heavier task for each respondent, leading perhaps to substantial numbers not completing their questionnaires, thus biasing the sample. Indeed the unusually high rate of response (91.7% average over all three quarters), discussed later, may have stemmed from the fact that the assignment was so short and easy to complete.*

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* One diary study of faculty time-use conducted in 1969-70 involved a national sample of faculty in British universities in which each respondent kept records for an entire week in each of three successive phases of the year. This rare and admirable example obtained a response rate of 81 percent for the first week, which declined to 61 percent for all three weeks. The composition of the population, the number of reminders, and other unknown factors may account for their rate being considerably lower than ours, but it may also reflect the fact that the assigned task was for a considerably longer period. Charles F. Carter, "Measuring Faculty Work in British Universities," in Doi, op., cit., p. 69. In a 1976 study involving diary records kept for an entire week at the University of Illinois, only 30.4 percent of the sample returned usable responses. University of Illinois, Urbana-Champaign, A Study of Research Management Improvement, April, 1977, p. 115.

The normal patterning of academic work was the overriding reason for assigning a unit of 48 hours or two weekdays, almost a unique choice in time-use studies, instead of the 24-hour unit commonly employed in such studies among the general population. The patterning of work in many other fields tends to be the same no matter what the day of the week, but teaching tends to be scheduled only on certain days, Monday-Wednesday-Friday, for example, and not on Tuesday and Thursday for many faculty, or the reverse pattern for others.

If we had assigned only one day, understandably the faculty members who by chance had been caught on their "off-day" might well have felt injured and misrepresented by such a narrow and Procrustean study which did not give them a chance to reveal themselves at their busiest and best. Those who were caught on their heavy teaching days, if they were afflicted by a hyperactive conscience, might also have felt that their teaching was described in a distorted, although exaggerated, light or that the research which they phased into their work week on their non-teaching days was understated.

Little would it matter to them that the luck of the statistical draw presented a faithful picture of the patterning of all kinds of work for the total faculty over the entire work week, the chances being equal that some would be caught on light days and others on heavy days. They personally might have felt cheated by the stark and misleading picture of themselves they were forced to draw, and there might have been strong and understandable pressures upon them to convey the deeper truth by an exaggerated report of their one day's activity. The 48-hour unit provided free play

to exhibit oscillating patterns of activity characterizing work on different days, and encouraged honest responses.

A cyclic pattern of classroom instruction is so familiar to anyone in academic life that it needs no special empirical demonstration, but for other reasons the questionnaire included a special supplementary question asking the respondent to indicate for each day of the week whether it was currently one of his heavier days, average days, or lighter days in terms of <u>total</u> instructional activities. Mondays and Wednesdays, as expected, were most frequently described as heavy days, Tuesdays and Thursdays less frequently, and Friday was least likely to be a heavy workday, but by contrast with the weekend, even Friday was a relatively heavy day. Only three percent and seven percent described Saturday and Sunday respectively as "heavy days".* This question was essential in providing the respondent an opportunity to describe his total week's pattern of activity, perhaps idiosyncratic, thus reassuring him that there would be a proper context for interpreting his activities on the days assigned.

Since the weekend pattern was anticipated, and weekends were included within the scope of our study so as to obtain a picture of activities over the entire week, it was decided to ask those reporting about the weekend to cover 72 hours and to include the adjacent Friday or Monday. Keeping a record for two such [illegible] days was not an excessive burden, and by

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* Only the Fall Quarter questionnaire asked respondents to rank all seven days of the week; subsequent versions in 1977-78 only asked for the ranking of the five weekdays. However, an analysis showed that the five weekdays were consistently ranked across all three quarters.

asking these individuals to describe one of their busier weekdays as well, it served to assure them that they were not being shown in a Sabbath light and thus encouraged candor about the weekend activities.

The use of 48-hour units plus one 72-hour unit would have made it possible to cover a total week with <u>three</u> subsamples: those assigned to Monday-Tuesday, Wednesday-Thursday, and Friday through Sunday, or those assigned to Saturday through Monday, Tuesday-Wednesday, and Thursday-Friday. However, this was not the pattern we followed, and the special way we applied the basic design deserves review because of its valuable features.

We used <u>six</u> equivalent subsamples to cover a week, arranging them in an overlapping, interpenetrating way, shown most easily in the following diagram. The seventh subsample which begins a second week provides the overlap on the weekend. Following this pattern, the design runs on until the last days of scheduled instruction on each campus are covered.

<u>Subsample</u>

```
(1) Sat./Sun.-Monday
(2)           Monday-Tuesday
(3)                  Tuesday-Wednesday
(4)                         Wednesday-Thursday
(5)                                Thursday-Friday
(6)                                       Friday-Sat./Sun.
(7) Sat./Sun.-Monday
 .
 .
 .
(N)
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As a result of this overlapping arrangement, two equivalent samples reported on each day, and each day was reported upon both when it was the <u>first</u> day and when it was the <u>second</u> day of the assignment. Various useful

measures of error -- only one of which is reviewed below -- can be extracted and derived from this special design.

Over the total sample, the difference between the findings on time devoted to various activities per day, on the average, for all days, when they are the first vs. second units assigned, expresses the net effect of novelty, fatigue, practice, and subtle processes of compensatory behavior or reporting that redress the balance of time invested on two consecutive days. The effect of memory processes, if and when they operated, is also included in the net effect. For example, some respondents understandably might not have kept a current diary record on each of the two days assigned them, and decided to make their entries at the end of the 48-hour period, thereby involving less remembering of the second-day data than the first-day data, although even then short-term memory is stretched very little.

The reliability or stability of these estimates is very comforting and suggests that all these sources of error in combination have a negligible effect. For all regular faculty employed full-time by the University, the estimates of average amount of time per day when first rather than second days are being reported differ by less than one minute for each of the following activities: research/creative activities; university service; and professional activities/public service. First day versus second day reports for total instructional time vary by 15 minutes.

These results provide strong, if indirect or inferential, evidence that short-term memory processes are not distorting the findings. The design itself, in theory and in practical application, eliminated long-term

memory. Any respondents who had not returned their questionnaires within ten days of the assigned dates were telephoned. Most of the "laggards" informed us that they had already recorded their activity, but had simply neglected to mail the questionnaire back, or were holding it until they answered the various supplementary questions (those not relating to activity on the specified days).*

More precise evidence is available on the length of the delay before recording the information on time use. In principle, the diary yields a concurrent running record with entries made throughout the day. However, since the diary was recommended only as an aid to reduce the difficulty of remembering activities and as a worksheet to simplify the summarizing of time, and was clearly stated to be optional and not to be returned once transcribed to the questionnaire, evidence on its actual utilization is valuable.

Since there was no obligation to employ the diary, answers to a special, supplementary question as to whether it was, in fact, used may be regarded as candid. In the Winter and Spring Quarters, 79 percent reported that

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* The University of Michigan has devised a novel way to eliminate memory error. Their standard official form is sent out during the third week of classes and instructs the faculty member to "estimate, as of the last day of the third week of classes... the effort you will (emphasis added) devote during the entire current term to each activity listed." Instructions for Filling out Academic Personnel Activity Report -- Fall Term 1976 -- College of Literature, Science and the Arts, University of Michigan (Mimeo, n.d.). This, indeed, eliminates all retrospection, but substitutes projection, anterospection, or guesswork about the future -- surely uncertain in character with the exception of routine scheduled classes, although even there absence for illness, etc., may modify the anticipated standard

they had used the diary, suggesting that most of the data is precise and not distorted by errors of memory.* However, more powerful evidence comes from other supplementary questions.

Respondents were asked to enter the respective dates on which they recorded their activities either in their diary or on the questionnaire if they had not used the diary. Combining the findings on time lapse for both the

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investment of time. And, of course, mental arithmetic or averaging applied to their questionnaire is still required.

Paradoxically, in an experiment in which one group received the form at the beginning of the semester and another group at the middle of the semester, to investigate whether early faculty perception of what they would do during the semester differed significantly from their prediction of their activities once the semester was half over, no significant differences were found. But surely this is a truncated experiment, in which both groups engaged in projection, and the guesswork may produce constant magnitudes of distortion. As the reviewer remarks, "The possibility exists that asking faculty members at the end of a term to recall their activities might produce some genuine differences." Charles W. Manning and Leonard C. Romney, Faculty Activity Analysis: Procedures Manual (Boulder, Colorado: National Center for Higher Education Management Systems, Western Interstate Commission for Higher Education, Technical Report No. 44, 1973), p.58.

Our own survey encountered a few instances of such projections. A small number of faculty submitted their completed questionnaires in advance of their assigned report days. These persons were contacted and asked to complete new forms, reporting on their actual rather than anticipated activities. Their too-prompt completion of forms generally reflected either a perception of a completely routine work pattern or a special circumstance, e.g., a series of all-day conferences scheduled for the dates assigned.

* In the Fall Quarter, the first wave of the inquiry, a different, more subtle and delicate phrasing of this question was employed which asked how helpful the diary had been. These answers may also be regarded as candid since there was no obligation to use the diary, let alone find it helpful. Seventy-five percent of the Fall Quarter respondents reported that the diary was "very" or "somewhat helpful". The remaining 25 percent either judged the diary as "not helpful" or answered that they had not used it. If we make the conservative assumption that all those who found it unhelpful did not make any use of it, the estimate of use in that quarter is almost identical to that reported for the two later quarters (75% versus 79% respectively).

groups indicates the overall magnitude of the short-term memory errors that might affect the total body of data.

Comparative analysis of the time lapse between date of assignment and date of reporting for diary users vs. non-users establishes how well it functioned, in practice, to ensure concurrent recording. About 58 percent of those who reported they used the diary kept their records concurrently, i.e., at some point during each of the days or weekend assigned. Another 15 percent kept a concurrent record for one of the assigned days, but let one day lapse for the other. Thus about three-quarters of the diary keepers came very close to concurrent recording. Less than five percent of the diary users allowed five or more days to elapse before recording their activities on their total assigned unit.

By contrast, among those who did not make use of the diary, using the same index of concurrent or close to concurrent recording, a smaller proportion -- 21 percent -- allowed no more than one day to elapse before recording their activities, while 28 percent allowed five or more days to pass. However, since only about 22 percent of the respondents did not keep diaries, it should be stressed that those who waited five days or more comprise only six percent of the regular faculty sample. Furthermore, a special analysis of a subsample of these cases showed that over half of them either had kept their own records of activities during the assigned report period, or had engaged in atypical activities on their report days which could be more easily recalled than routine activities. Thus, the potential for bias introduced by this group is negligible.

Three other features of the instruments deserve review:

1. Format: Pleasing arrangement, adequate space to make discrete entries and to do the necessary addition -- on paper and not in the head -- are not trivial considerations. Poor format may irritate the respondents and increase clerical error. Proper vigilance requires consideration of such errors. The portions of the diary and questionnaire involving the recording of time would be unlikely to create much clerical error, and it is reasonable to predict that these would be minimal in so educated and disciplined a population as university faculty. But the "editing" process applied routinely to all returned questionnaires, in which they were checked for completeness of entries and to make sure that time devoted to all the various types of activities in each day totaled 24 hours, provides empirical evidence on clerical error.

   A special analysis of a subsample comprising about one-third of the questionnaires shows that only about six percent of these respondents had made errors or omissions that affected the four essential questions in the instrument.* Most of these problems involved clerical or arithmetic errors; some respondents submitted time budgets that, when the hours were added up, were either substantially above or below 24 hours (or 48 if a weekend). Nearly all of these respondents (90%) were successfully contacted and the errors resolved and corrected, thus reducing such sources of error in the final data to a negligible

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* The essential items were Questions 1, 4, 8 and 9. See Appendix D for illustrations of these items, and for examples of other field materials used in data collection.

factor. Some may say that this only proves what they regard as obvious -- that college faculty are competent at simple arithmetic and clerical tasks -- but it does suggest the general high level of care shown by the overwhelming bulk of the sample.

Instructions and Definitions of Terms: Unless terms are carefully defined, and precise instructions given to resolve ambiguities, there is a danger of obscurity in the quantitative findings, even the possibility that results will be meaningless. No reader will know what they refer to or mean. Even before that stage, there is the danger that the respondent will be so perplexed and irritated by the ambiguities that his cooperation and care will be reduced.

As Stecklein remarked in his authoritative historical review of studies of faculty time use quoted earlier, the problems with definitions have been a chronic source of difficulty. What types of activities shall be included under "instruction", and under other categories (such as "research", or "public service"), and even whether time spent in these latter ways shall, in effect, be defined as "non-work" by the omission of all categories other than "orthodox" instruction (a common practice in some of the studies) are but one set of problems. Such problems were carefully reviewed with the Special Committee and representatives of the Administration, and the decisions were made jointly with the Institute. The broader operational definitions are explicit and will be clear to all who examine the materials presented in Appendix D.

No kind of university-related activity was excluded from the accounting, although different kinds were sharply distinguished and separated by a refined classification. If some legitimate activity had been excluded, by fiat, and a faculty member then had no place to enter it, he might well have felt justifiably misrepresented, and been under some pressure to inflate activity in another category listed on the instrument so as to present a complete picture of the time spent on professional activities.

Indeed, the instrument goes beyond a comprehensive set of categories under which quantitative entries could be made. An open-end question at the end of the questionnaire asked respondents to describe "any important elements of your work that you feel are not adequately covered", thus making the inquiry truly exhaustive and again allaying any concern that they had been misrepresented.*

Problems of definition also arise in connection with the counting of time. Is commuting to a class part of instruction? How much of the time spent in jointly teaching a class should be counted by each of the two instructors involved? Is time from office to classroom part

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* Review of the comments obtained in the Fall and Winter Quarters led to a small number of changes in the questionnaire in subsequent quarters. These changes occurred mainly after the Fall Quarter, the first trial of this inquiry. In special instances, estimates for certain specific kinds of activities obtained in later quarters may have no exact counterparts in an earlier quarter, or may be based on procedures that are not completely comparable across the three quarters. Careful account was taken of these problems in evaluating specific findings, and the reader will be duly alerted so that he can also take such matters into consideration. The gains in quality and sharpness of the information from these improvements were thus achieved without any real dangers to the conclusions.

of instruction? Is a 50-minute class to be counted as an hour? What degree of precision shall be requested and what conventions for rounding numbers shall be used? Here again, decisions were made jointly and only after careful review with the Special Committee. Definitions were explicit in the instruments and supplementary materials for all respondents to follow and all readers to examine.

A special problem arises in connection with working time that jointly and simultaneously contributes to more than one activity. The normal and rigid rule in most studies is that a unit of time is indivisible and can be allocated to only one activity -- thus flying in the face of everyone's experience that we often do more than one activity at a time -- we listen to the radio while reading a book, or prepare a grocery list while doing the laundry. It also overlooks the fact that work in one area of activity can contribute to work in another area -- thus, for faculty members, research activity often shows up in classroom teaching.

The decision was made to permit faculty to report separately those portions of the time where the primary activity was other than instruction, but which they regarded as "contributing to instruction." The estimates can be made both with and without the contribution or payoff from jointly productive activity and are presented both ways in later tables. Once more, by this operational definition, the faculty member

is comforted that the full contribution of his professional activities to instruction is not being discounted, and feels less pressure to inflate various reports.*

Introductory Materials: The title page of the questionnaire and a separate covering letter were important elements of the instrument. They served to state the context for the inquiry; to create the proper mental set for the respondents; to answer certain nagging questions that might otherwise bother respondents; to specify where additional information could be obtained if respondents were still in doubt as to the nature, purposes, auspices, or meaning of the questions.

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* In a comparative study of the way the general population of twelve countries use their time, perhaps the largest and most sophisticated such study in the literature, very large samples kept diaries for a 24-hour period which were supplemented by two types of interviews conducted with small subsamples: a "yesterday" interview in which the interviewer probed and clarified the entries made the day before in the diary, and a "fresh" interview with a different subsample about another day's activities (other than the one for which the diary had been kept) and for which exercise the respondent had not been prepared in any way in advance. The overall design is somewhat similar to ours. In that study, both primary activities done in a given unit of time, and "secondary" activities, defined as "an activity performed concurrently with primary activities" were recorded.

The investigators remark, "We believe that this distinction between primary and secondary activities represents a notable improvement of our study over most previous investigations of time-budgets." Alexander Szalai, ed., The Use of Time: Daily Activities of Urban and Suburban Populations in Twelve Countries (The Hague: Mouton, 1972), p.77.

In one past study of time use among University of California faculty where the innovation of allocating portions of time to "secondary" activity when the time was jointly productive was introduced, the contribution allocated ran considerably higher than we obtained, suggesting the caution of the faculty in handling this task in our study, and the conservatism of these particular estimates. See preliminary findings of the 1968-69 Survey of Faculty Effort and Output (Berkeley: University of California), p.10.

These materials described joint sponsorship of the study by the Academic Council and the Administration of the University; they noted the fact that the study was being conducted by an independent research organization and carried out by personnel not connected with the University; they described the measures that were taken to ensure confidentiality; and finally they listed the telephone numbers of the Institute and of the Special Committee members for reference and use if desired by the respondent.

There is no doubt that these materials contributed to the cooperative spirit the sample of faculty displayed; to the unusually high response rate and the promptness with which the questionnaires were returned; to the care shown in recording the information. If the stage had not been set so well by the introductory materials (and the more general publicity), the experience might have left a lingering worry in the minds of many respondents, or even been a trauma for some. That the study was well received is attested to by the comments to the open-ended item, and by spontaneous phone calls and letters received.

B. SAMPLING

Since the primary aim of this project was to collect information on the time faculty spend on instructional activities, data were collected only during the instructional weeks of the 1977-78 academic year.* The study population was conceived as covering only those faculty members on the University payroll having some instructional responsibilities at any of the eight general University campuses: Berkeley, Davis, Irvine, Los Angeles, Riverside, San Diego, Santa Barbara, and Santa Cruz. The regular faculty ranks in the survey population included professors, associate professors, and assistant professors; the irregular ranks included lecturers and supervisors. The study population excluded instructors (among regular faculty) and associates and assistants (among the irregular faculty) because these titles are subject to differing campus practices.

The following faculty members were excluded:

(1) Faculty members in the schools of medicine, dentistry, nursing, optometry, veterinary medicine and public health were excluded because their professional activities and time-use patterns vary so greatly from those of other faculty as to make a combined analysis meaningless. (The entire UC San Francisco campus was excluded from the study population for this reason.)

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* The decision to limit data collection to instructional weeks only was not made until the Winter Quarter. Thus a few respondents in the Fall Quarter reported during the final exam week on their campuses. These data, however, were excluded from our analysis. For details, see Appendix C.

(2) Full-time deans and administrators were excluded because their activities are clearly administrative rather than instructional.

(3) Those on sabbatical or on unpaid leave from the University were excluded since they were not currently part of the teaching staff.

(4) Faculty who were overseas on the UC Education Abroad Program were excluded because the survey instruments would not necessarily be adaptable to their activities.

(5) Faculty teaching at UC law schools were excluded because these schools operate or plan to operate on a semester basis, and could not be integrated into a survey design based on an academic quarter.

Other faculty members excluded from the population were those few teachers who had participated in early critiques and pretests of the study instruments. Although full-time deans and administrators were ruled ineligible, the study population did include department chairmen and directors of organized research units.

Each of the three quarters studied was sampled separately. The Fall Quarter sample was larger than those for the other quarters because data collected during the early weeks of this quarter were the basis for the preliminary report. Furthermore, there were many unknowns prior to the first trial of this procedure. Since we needed to protect this study against the danger that the return rate would be low and the variance high, conservatism dictated that the sample size be large. It turned out that we were unnecessarily conservative in that the return rate was high and the variance low.

The sample for each quarter necessarily had to be drawn from an earlier payroll listing prepared by the University's Information Systems and Computing: Information Management Division. Thus the Fall Quarter sample was obtained from the July 1977 payroll, the Winter Quarter sample from the October 1977 payroll, and the Spring Quarter from the January 1978 payroll.

Although data for the irregular ranks were obtained for both Fall and Winter Quarters, the Fall sample for irregular faculty was found to be unrepresentative, and their data are not shown in this report.* The irregular faculty present special sampling difficulties -- the lack of a complete payroll listing of these faculty in July prevented us from selecting a representative Fall sample. Furthermore, our experience with the Fall Quarter portion of the study showed that irregular faculty were more costly to survey than the regular faculty because a high proportion of the irregular faculty are part-time employees and hence more difficult to reach for the telephone follow-up calls. For these reasons, it was decided to concentrate our data collection for the irregular faculty in the future to the Winter Quarter only.

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* It was not until the Winter Quarter sample was drawn in November 1977 that it became apparent that the irregular sample for the Fall Quarter was not representative. Most of the irregular faculty teaching in the Fall Quarter did not appear on the July payroll; those that did appear tended to be irregular faculty who were held over from year to year. The Fall data for this atypical irregular faculty sample are not presented in this report. It was possible to obtain a representative sample for the irregular faculty for the Winter Quarter and these data are shown in Section VI.

The problems related to the Fall Quarter irregular faculty sample did not affect the sample of regular faculty. Data from the University's Information Management Division show that only minor changes in the payroll records for regular faculty occurred between July and October.

In the Winter and Spring Quarters the sample was selected from the population of faculty members excluding those who were previously sampled. In preparing each quarter's sample, the payroll listing of faculty was stratified to ensure proportional representation of campuses, departments and ranks.* A systematic random sample was selected so that every individual had an equal probability of inclusion. The total number of eligible regular faculty sampled was 2199; an additional sample of 140 eligible irregular faculty was selected for the Winter Quarter.** By "eligible" we mean either completed cases that were included in the analysis or cases that would have been included if the questionnaires had been returned to us. Thus excluded from the eligible count are cases assigned during non-instructional weeks of the Fall Quarter; all irregular faculty sampled in the Fall Quarter, etc. See Appendix C for discussion of eligibility.

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* Although the size of the eligible faculty population varies over an academic year, in October 1977, this population numbered 4871 regular faculty and 1350 irregular faculty. (Source: personal communication with Greg Kast, Manager of Analytical Informations Systems, University of California.)

** Our original Winter Quarter sample was larger and included associates and assistants. However, as the returns came in it became apparent from the responses that a number of the associates and assistants were graduate students and their duties overlapped with the duties of teaching assistants. It was discovered in consultation with the University Administration and the Advisory Committee that various campuses had different practices regarding these titles and the decision was made to limit the reporting of data for irregular ranks to lecturers and supervisors. In future years the size of this sample will be increased to approximately 325 to facilitate year-to-year comparisons.

C. RESPONSE RATE

Questionnaires were sent to 2339 eligible faculty members; the data in this report are based on the responses obtained from the 2153 faculty members who returned their questionnaires. This represents an overall response rate of 92.0 percent.*

The response rate was consistently high over all three quarters: 92.5 percent in the Fall Quarter; 92.2 percent in the Winter; and 90.3 percent in the Spring. (The average response rate, weighting each quarter equally, was 91.7 percent.) Completion rates of this magnitude justify confidence in the representativeness of the survey data since information has been obtained on the professional activities of all but a very small fraction of the sample.

One problem which has troubled survey researchers in recent years is the increasing proportion of non-responders. A researcher in such a situation must recognize the possibility that the loss of the non-responders has biased the findings. If the non-responders differed radically in character from the responders, their data, if it were possible to include them, might substantially alter the results of the study. The investigator must then appraise the extent to which their absence may have biased the findings. In this study, with so few non-responders, the risk of bias is negligible; even if they are radically different, the weight of their numbers is so small that they could not appreciably change the estimates.

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* The response rate was slightly higher for the regular faculty than for the irregular -- 92.3 percent versus 87.9 percent respectively.

D. FACTORS CONTRIBUTING TO THE HIGH RESPONSE RATE

The achievement of a response rate of over 90 percent reflects an attitude of exceptional cooperation on the part of the faculty to an independently undertaken study of their professional activities. We believe a major factor that contributed to the high level of cooperation was the clear assurance of confidentiality that we gave to the faculty respondents. All faculty were informed of the various measures the Institute employed to protect the data. Furthermore, they were assured that data would be reported only as Universitywide statistics and that no comparisons would be made of individuals, departments or campuses. But the cooperative spirit of the faculty cannot alone explain the remarkably large numbers who mailed in completed questionnaires. On any large-scale mail survey a number of problems can arise which no amount of respondent cooperation can overcome. Questionnaires can get lost in the mail either on their way to the respondent or on their way back to the researchers. A questionnaire can get buried in the stack of mail that accumulates on a professor's desk, particularly in the early weeks of the academic year.

To inform the faculty that this survey was about to begin, articles appeared in both The University Bulletin (an Administration publication) and Notice (an Academic Council publication). In addition to mailing the questionnaires in bright orange envelopes (with attractive commemorative stamps) to the office addresses of sampled faculty, postcards were also mailed to their home addresses. The postcards notified the faculty members that they had been selected as part of the sample, and that questionnaires would arrive soon in their office mail. The Institute's phone number was

listed on the postcard so those faculty members who did not receive questionnaires through the mail could report this problem.

The major step that was taken to overcome problems related to mail service and respondent oversight was a systematic schedule of personalized contacts with members of the sample. Faculty members were contacted by phone just prior to the first day of their assigned report period. This call reminded them of their report days, and gave them an opportunity to ask any questions they might have about the study or the questionnaire. This contact also informed the Institute of faculty members who had not received their questionnaires in the mail and allowed for prompt reassignments and additional mailings of the forms.

Faculty members who had not returned their completed questionnaires within ten days after their report days were again contacted by telephone to discover whether they had filled out the forms, whether the forms were in the mail or whether they had forgotten about the questionnaire altogether. Those faculty who had not completed the questionnaire but had recorded their time, or who had been engaged in easily-recalled atypical activities on their assigned days (e.g., on a site visit, or sick in bed) were urged to fill out the questionnaire for their original report days.

Those faculty members who had not yet recorded their time and whose assigned report days were not atypical were reassigned to later report days. These reassigned days were identical to the original report days -- i.e., a professor assigned Monday-Tuesday was reassigned to Monday-Tuesday in a

later week. Reassigned faculty were instructed to change the dates stamped on their forms, and the reassigned dates were also entered on he Institute's records. Contrary to early concerns, very few faculty members forgot to fill out their questionnaires for their assigned days, and therefore few were reassigned.

E. MEASURES TO EVALUATE DATA QUALITY

In order to assess the quality of the information collected by the self-administered questionnaire, special methodological analyses of the data were performed. Information was checked by multiple internal consistency tests which show that data were reported carefully and rationally by respondents. For example, the finding that faculty teaching new courses spent considerably more hours per week on course preparation than faculty not teaching new courses is hardly surprising in itself, but it does present evidence that supports the rationality of the reported information.

Another test made early in the analysis showed many more hours on university service for department chairmen, directors of organized research units and for faculty with other reasons for released time (e.g., vice-chairmen of departments, members of various academic committees). This too is a reasonable, if unstartling, finding which provides additional evidence of the internal consistency of the data. None of these internal tests is presented quantitatively in this report, in accordance with our promise to respondents to protect identities of collective units within the faculty as well as of single individuals.

The major effort to evaluate the data reported on the self-administered questionnaires involved a large-scale follow-up telephone interview conducted on a random subsample of 260 respondents who had returned completed questionnaires in the Fall Quarter. These faculty were notified by mail that they were selected for such a follow-up interview and were sent "interview guides" which listed the activities on which they would be asked

to report. This list was identical to the list that accompanied the survey questionnaire. The letters and guides were mailed to both the home and office addresses, whenever possible, to ensure that the respondent would be able to refer to the list wherever he was reached.

Although the assigned report days for the mail survey were known to the faculty well in advance, the subsample interviewed by telephone was not informed beforehand on which days they would be requested to report. When reached by phone, these faculty were asked to report the amount of time they spent on UC-related professional activities during the two preceding days.

To maximize comparability, the telephone interviews were scheduled so as to collect data on the same days of the week as were reported in each respondent's mail questionnaire. Thus a professor who had reported by mail for a Tuesday-Wednesday period was telephoned on a Thursday in a subsequent week and asked to report on the past two days -- another Tuesday and Wednesday. Because of the difficulty in reaching faculty by phone on the correct day of the week, we were not able to achieve this ideal kind of validation for all persons in the subsample. However, 51 percent of the 260 faculty did report on the same days of the week for both mail and phone surveys; of these 133, 112 were full-time regular faculty members.

The telephone interviews allowed us to compare data collected from the same person through two different methods, and under two different conditions -- one where the respondent knew in advance which days would be under scrutiny, and another where he had no forewarning. As one respondent

commented at the end of the questionnaire: "Since you know you are keeping a diary you are less apt to goof off. Since you know what the 'commendable' activities are and since I have always a great backlog of work in all areas of activity it is very easy to select the commendable things to do during the diary period. I made no effort to distort my usual patterns, but I'm sure there were unconscious effects upon my pattern." This surely suggests how scrupulous this and other respondents were in approaching the task, and how helpful they were in providing supplementary information to interpret the quantitative data, but it also suggests the need to check on an insidious source of error in the questionnaire data.

A comparative analysis was performed on the data reported by the 112 full-time regular faculty members in the telephone interview subsample who reported on the same days of the week as those they reported on earlier in their questionnaires. The results of the analysis revealed that the worry the conscientious respondent expressed was not warranted. There were variations between the hours reported by questionnaire and by telephone interview for many individuals, some reporting higher activity on the telephone and others reporting lower activity. However, the estimate of ultimate concern to us -- the average weekly instructional hours for the aggregate group of respondents -- showed no significant difference between the findings reported for the two different methods. In fact, the weekly averages for total instructional activities were the same -- a weekly estimate of 25.0 hours was obtained through the questionnaire and 24.9 hours through the telephone interview.*

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* The estimates for professional activities/public service showed a statistically significant difference -- the hours reported on the questionnaire

The telephone interviews served an additional purpose in that they provided more detailed information on the UC-related activities of the faculty. The instruments listed examples of a large number of specific activities under each of the general activity categories. As a result of the information we obtained from the telephone interviews in the Fall Quarter we were able to clarify and refine our categories, and thus improve our survey instruments for the subsequent quarters.

For instance, the category for "other instructional activities" in the Fall Quarter questionnaire included student advising; participation in qualifying and other graduate student examinations; symposia, colloquia and other non-credit instruction along with a number of other miscellaneous instructional activities. The telephone interviews identified which specific activities were prevalent and also provided information on how the faculty were classifying their activities. Consequently, our questionnaire for the Winter Quarter was revised to allow faculty to report time spent on student advising, oral examinations, and non-credit instruction separately.

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were higher than those reported later in the telephone interview. It should be pointed out, however, that these comparisons reflect only the data for those 112 full-time regular faculty members who were reachable by phone on the correct days of the week. This dictates that at the time of the telephone interview these faculty were not out of town attending meetings of professional societies, or devoting time to any public service activities that required them to be out of the area. This suggests that the difference found for this category of activities was an artifactual one. This hypothesis is supported by an analysis of the data for <u>all</u> full-time regular faculty in this subsample (N=219), regardless of whether or not they were reached on the correct days of the week. These data show no significant difference between the hours reported in the questionnaire for professional activities/public service and the hours reported in the telephone interview.

IV. CALCULATION OF ESTIMATES

A. TABLES SHOWING ONLY INSTRUCTIONAL ACTIVITIES

The primary focus of this study is on the instructional activities of the UC faculty. The payroll system of the University of California uses the "Instruction and Research Full-Time Equivalent" (I&R FTE) as the fiscal accounting unit for instructional activities and research not otherwise supported.* Tables which present data on only instructional activities report estimates per I&R FTE, to show what this portion of the faculty paycheck is purchasing in terms of instructional effort.

The necessity for presenting averages per I&R FTE rather than per person led to the computation of "ratio estimates" whenever employees with less than 100 percent FTEs were involved. (Over 80 percent of the regular faculty respondents have I&R FTEs of 100 percent; the remainder have fractional I&R FTEs.) For the 100 percent FTE employees the number of FTEs and the number of people were, of course, identical.

For faculty with less than 100 percent I&R FTE, two possibilities were apparent:

a. Analysis in which data for each faculty member with an FTE of less than 100 percent would be adjusted upward to indicate the equivalent

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* The I&R FTE is not to be confused with the combined (I&R and OR) FTE which takes account of funding for "Organized Research."

workload if the employee were full-time. This procedure yields an average value per "adjusted person", not per FTE.

Analysis in which the sum of the instructional workload for all faculty would be divided by the sum of the I&R FTEs they represent. This yields a ratio estimate which reflects the amount of work purchased by each funded I&R FTE; in other words, the average workload per I&R FTE. This analytic procedure was used in all tables except 4, 5 and 9. (See Appendix A for formulas.)

B. TABLES SHOWING ALL UC-RELATED ACTIVITIES

A secondary purpose of the study was to analyze the time faculty spent on all UC-related activities -- not only instructional effort but time spent on research, university service, etc. Given that a number of part-time faculty hold other jobs, and that it would be very difficult to allocate their reported non-instructional activities between UC and their other employers, the decision was made to limit the analysis of all UC-related activities to full-time UC employees only. Among the regular faculty respondents, over 98 percent are full-time when "Organized Research" support is taken into account along with "Instruction and Research" funding. Among the irreguiar faculty, nearly 57 percent are full-time employees. Thus, the estimates in Table 4 reflect the activity of nearly all the regular faculty respondents; in Table 9, the estimates reflect the activity of those 70 irregular faculty respondents (out of 123) who are full-time. These estimates, based on the data of full-time faculty, reflect the average hours of activity per person, not per FTE.

C. COMPUTATION OF ANNUAL ESTIMATES

Most of the data presented in this report are averages (arithmetic means) for the weekly hours spent on various activities. The decision to use the arithmetic mean rather than the median as the summary statistic of central tendency was justified by the fact that the frequency distributions underlying the summary statistics were reasonably regular and symmetrical with few outliers.* Furthermore, the use of the mean provided statistical simplicity and easy comprehensibility.

The computation of the mean to represent the average week required weighting of the raw data, and the requisite weighting is implicit in the formulas presented in Appendix A: Estimating Procedures. Each respondent supplied information on a two- or three-day period. Each of the day-combinations was received from an independent sample of the population and the samples varied in size. Thus, the procedure involved computing a mean for each separate day-combination and combining these means into an estimate for a particular week. Similarly, the means for the separate weeks (each with a different aggregate sample size) were combined so that each week contributed equally to the overall average for the quarter. Lastly, the means for the three separate quarters (each with a different aggregate sample size -- the Fall sample being much larger than those for the Winter and Spring quarters) were combined so that each quarter contributed equally to the overall average for the year.

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* See Appendix B for frequency distributions of responses on key variables.

D. CONFIDENCE INTERVALS

Confidence intervals are shown on summary Tables 1, 4, 6 and 9 which present the basic weekly estimates. The confidence intervals surrounding each mean provide an estimate of the range of values in which the population value is likely to lie. Precisely stated: if all possible similarly designed samples were drawn from this population; if sample means were computed for all such samples; and if the confidence limits were computed around all such sample means; then 95 times out of 100, the confidence intervals will contain the mean of the total population.

The estimating procedures and the appropriate formulas for the mean, the variance of the mean estimate, the standard error and the confidence intervals are given in Appendix A.

V. ACTIVITIES OF THE REGULAR FACULTY

The tables in this section include data for 2030 regular faculty respondents in our study; these include professors, associate professors and assistant professors.*

A. INSTRUCTIONAL ACTIVITIES

The focus in Tables 1 through 3 is on the time regular faculty members spent on instructional activities and, accordingly, the calculations of the time estimates are based on I&R FTEs. From the point of view of fiscal accounting, the tables answer questions about what activities are being purchased for each I&R unit of expenditure.

These tables show the weekly estimates for all regular faculty and, separately, the weekly estimates for regular faculty with 100 percent I&R FTEs. The mean hours for activities were calculated by summing the reported hours and dividing by the total sum of their FTEs. Since for faculty with 100 percent I&R FTEs, the number of FTEs and the number of people in the group are identical, the table columns showing regular faculty with 100 percent FTEs provide information on the average time spent by these faculty

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* The regular faculty respondents include 165 faculty who are department chairmen and/or directors of organized research units. Although the majority (75%) of these faculty members have I&R FTEs of 100 percent, the time they can devote to instructional activities is reduced by their administrative responsibilities. Their presence in the regular faculty group thus tends to lower slightly the average hours for instructional activities per FTE, while raising the average for university service.

members. This is not the case for the estimates in the columns showing all regular faculty combined where the estimates are shown per FTE, not per person.

Respondents were instructed to report time spent on instructional activities under seven distinct categories, the first five of which represent direct student contact:

"Regularly Scheduled Course Instruction" includes not only classroom instruction but also laboratory and fieldwork instruction. The estimates for this category reflect only those hours actually taught; if for any reason the faculty member did not teach a regularly scheduled class on his or her report days, those hours were not to be entered for this category. On the other hand, if a respondent taught as a guest or substitute lecturer in a scheduled class, the hours involved were to be reported here.

"Non-Credit Instruction" includes all instruction of seminars, courses, colloquia and symposia for which no academic credit was given.

"Supervising Independent/Special Study" includes the actual time in which faculty met with students taking such courses.

"Student Advising" includes the time faculty spent outside the class giving academic guidance to students.

"Oral Exams" includes the time faculty spent participating in qualifying examinations given to graduate students. It also includes the time faculty spent on student auditions and readings for purposes of placement or selection in the fine arts departments.

"Course Preparation" includes the hours faculty spent not only on currently taught courses, but also those hours devoted to future courses the respondent planned to teach within the next quarter or two. It does not include preparation for courses to be given in the indefinite future.

"Other Instructional Activities" includes any time spent on instructional activities other than those listed above. To help the respondent understand what could reasonably be included in this category, we provided a list of the following examples: preparing exams; grading papers and exams; conferences with teaching assistants; writing letters of recommendation; reading theses and dissertations; informal or committee discussions regarding teaching, curriculum, etc.

Table 1 summarizes the weekly time estimates for all types of instructional activities. The two columns on the left show the estimates based on data reported for all three quarters; estimates in the two right-hand columns are based on Winter and Spring Quarter data only. The Winter-Spring Quarter data provide detailed information about time spent on "non-credit instruction," "student advising" and "oral examinations." The Fall Quarter questionnaire subsumed time spent on these activities under the category, "other instructional activities." For this reason, the full-year estimates for "other instructional activities" cannot be compared with the Winter-Spring estimates for this category.

Faculty members with 100 percent I&R FTE spent an average of 28.4 hours a week on all instructional activities during the 1977-78 academic year.

The comparable figure for the Winter-Spring Quarter data is almost identical -- 28.6 hours a week.

The detailed breakdown of data provided by the Winter and Spring Quarter instruments shows that almost half of all instructional time involved direct student contact (13.0 hours out of 28.6). As expected, regularly scheduled course instruction (5.9 hours) consumed more hours than any other activity involving direct student contact. Student advising consumed 3.5 hours a week and supervising independent/special study, 2.4 hours. Much less time was spent on non-credit instruction (0.8 hours) and participating in oral examinations (0.3 hours). For every hour spent teaching scheduled courses, nearly two hours were spent on course preparation (5.9 hours and 10.5 hours).

The figures referred to above reflect the estimates for regular faculty with 100 percent I&R FTEs. Estimates on a per FTE basis for <u>all</u> regular faculty are similar in terms of the proportionate use of time, but the absolute number of hours for each category are slightly higher than those for the full-time regular faculty with 100 percent I&R FTEs. Overall, the average time for all reported instructional activities <u>per I&R FTE</u> among <u>all</u> regular faculty was 30.4 hours a week for the full year data, and 30.6 hours a week for the Winter-Spring data.

The figures shown in Table 1 represent only the time in which instructional activity was the <u>primary</u> activity. Not included here is the contribution to instruction of time spent on research or other non-instructional activities. (These data are shown in Table 5 in this section.) In

TABLE 1

SUMMARY OF INSTRUCTIONAL ACTIVITIES AMONG REGULAR FACULTY
Average Hours per week per I&R FTE

Confidence Limits Are Shown at the 95% Level

	1977-78 Academic Year		Winter & Spring Quarters Only	
	100% I&R FTE	All Reg. Faculty	100% I&R FTE	All Reg. Faculty
TOTAL, ALL INSTRUCTIONAL ACTIVITIES	28.4 †	30.4 †	28.6 †	30.6
Upper Confidence Level	*29.2*	*31.5*	*29.7*	*32.1*
Lower Confidence Level	*27.6*	*29.3*	*27.5*	*29.1*
DIRECT STUDENT CONTACT				
REG'LY SCHEDULED COURSE INSTRUCTION	5.8	6.1	5.9	6.2
Upper Confidence Level	*6.2*	*6.5*	*6.4*	*6.8*
Lower Confidence Level	*5.4*	*5.7*	*5.4*	*5.6*
NON-CREDIT INSTRUCTION	*	*	0.8	0.9
Upper Confidence Level			*1.0*	*1.1*
Lower Confidence Level			*0.6*	*0.7*
SUPERVISING INDEP./SPECIAL STUDY	2.4	2.8	2.4	2.9
Upper Confidence Level	*2.6*	*3.0*	*2.7*	*3.3*
Lower Confidence Level	*2.1*	*2.6*	*2.1*	*2.5*
STUDENT ADVISING	*	*	3.5	3.8
Upper Confidence Level			*3.8*	*4.2*
Lower Confidence Level			*3.2*	*3.4*
GIVING ORAL EXAMS	*	*	0.3	0.3
Upper Confidence Level			*0.4*	*0.4*
Lower Confidence Level			*0.2*	*0.2*
SUBTOTAL, ALL DIRECT STUDENT CONTACT	*	*	13.0 †	14.1
Upper Confidence Level			*13.7*	*14.9*
Lower Confidence Level			*12.3*	*13.3*
COURSE PREPARATION	10.8	11.3	10.5	11.0
Upper Confidence Level	*11.3*	*11.8*	*11.2*	*11.8*
Lower Confidence Level	*10.3*	*10.8*	*9.8*	*10.2*
OTHER INSTRUCTIONAL ACTIVITIES	9.5 **	10.3 **	5.0	5.5
Upper Confidence Level	*10.0*	*10.9*	*5.6*	*6.2*
Lower Confidence Level	*9.0*	*9.6*	*4.4*	*4.8*
NO. OF I&R FTEs	1651.0	1817.4	607.0	668.6
NO. OF FACULTY REPORTING	1651	2030	607	748

† Column addition differs slightly from total shown because of rounding.

* The Fall Quarter questionnaire did not provide details on these categories.

** Because these figures include activities indicated by the symbol * , they are not comparable to those shown for only the Winter and Spring Quarters.

this sense, the hours shown in Table 1 are "conservative" -- that is, they underrepresent the total time faculty devoted to instructional activities by ignoring the transfer value that activities such as research can contribute to instruction.

Level of Course Instruction

In the 1977-78 questionnaires, information on the level of course instruction was not obtained from the time budgets. Instead, this was obtained through two supplementary items. On one item, the respondents indicated by level the number of regularly scheduled weekly class hours they were teaching that quarter. The weekly estimates (for all levels combined) derived from this supplementary item were quite similar to those derived by combining time budgets. The congruence of the two sets of estimates is not unexpected since they reflect hours spent on a scheduled activity that occurs regularly over the quarter.

On the other item, however, respondents had to indicate the total number of hours "during the last calendar week" they personally met with students taking independent or special study courses and distribute those hours over lower, upper, and graduate levels. This item depended on the respondent's ability to recall accurately an unscheduled, episodic activity. It is not surprising that the weekly estimate of total time devoted to such activity derived by this method differs considerably from the estimate derived by combining time budgets. According to the recall item, regular faculty with 100 percent I&R FTEs spent an average of 4.3 hours a week on independent/

special study supervision; according to the time budget item, this weekly estimate was only 2.4 hours.

Although the magnitude of such activity obtained from a recall question cannot be safely regarded as accurate, the proportionate distribution by level is less likely to be in error. Therefore these proportions were applied to the hourly estimates obtained from the time budgets. In this way we derived inferential estimates of the amount of time spent on regularly scheduled course instruction and on independent/special study courses at the three levels. The findings, synthesized from the two sources of data and presented in Tables 2 and 3, seem reasonable but should be interpreted with caution.*

Table 2 shows the hours of regularly scheduled course instruction according to the level of the courses. Regular faculty members with 100 percent I&R FTEs spent about a third of these hours (33%) teaching graduate courses, a little less than half (46%) teaching upper division courses and slightly over a fifth of this time (21%) teaching lower division courses. Data for all regular faculty show almost an identical distribution of teaching time.

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* The data from which the proportionate distributions are derived were reported during the Winter and Spring Quarters only. These data were not available for the Fall Quarter. See Appendix C for details.

Future versions of the questionnaire will ask respondents to indicate how many of the hours reported in their time budgets for scheduled course instruction were spent on lower division courses, how many on upper division, etc. The same breakdown will be asked for reported time on independent/special study supervision. This will avoid the necessity of synthesizing these data from two sources.

TABLE 2

LEVEL OF REGULARLY SCHEDULED COURSE INSTRUCTION
(INCLUDING LAB AND FIELDWORK) AMONG REGULAR FACULTY

Average Hours Per Week Per I&R FTE

	1977-78 Academic Year			
	Proportionate Distribution *		Average Weekly Hrs.	
	100% I&R FTE	All Reg. Faculty	100% I&R FTE	All Reg. Faculty
LOWER DIVISION	21	20	1.2	1.2
UPPER DIVISION	46	47	2.7	2.9
GRADUATE LEVEL	33	33	1.9	2.0
TOTAL, ALL LEVELS	100%	100%	5.8 hrs.	6.1 hrs.
NO. OF I&R FTEs			1651.0	1817.4
NO. OF FACULTY REPORTING			1651	2030

* The proportions shown above were not obtained from the respondents' time budgets but from a supplementary item that appeared only in the Winter and Spring questionnaires. These proportions were applied to the hourly estimates obtained from time budgets for the three quarters combined to produce the distribution of hours shown in the right hand columns. For details see pages 45-46.

TABLE 3

LEVEL OF INDEPENDENT/SPECIAL STUDY SUPERVISION
AMONG REGULAR FACULTY

Average Hours Per Week Per I&R FTE

	1977-78 Academic Year			
	Proportionate Distribution *		Average Weekly Hrs.	
	100% I&R FTE	All Reg. Faculty	100% I&R FTE	All Reg. Faculty
LOWER DIVISION	3	3	0.1	0.1
UPPER DIVISION	23	21	0.6	0.6
GRADUATE LEVEL	74	76	1.8	2.1
TOTAL, ALL LEVELS	100%	100%	2.4 hrs.†	2.8 hrs.
NO. OF I&R FTEs			1651.0	1817.4
NO. OF FACULTY REPORTING			1651	2030

* The proportions shown above were not obtained from the respondents' time budgets but from a supplementary item that appeared only in the Winter and Spring questionnaires. These proportions were applied to the hourly estimates obtained from time budgets for the three quarters combined to produce the distribution of hours shown in the right hand columns. For details see pages 45-46.

† Column addition differs slightly from total shown because of rounding.

Table 3 presents data on the hours spent on independent/special study supervision by level. For both faculty with 100 percent I&R FTEs and all regular faculty, by far the greatest amount of time spent on independent/special study supervision was devoted to graduate level students.

B. ALL UC-RELATED ACTIVITIES

The focus of attention in the remainder of this section is on the full range of UC-related activities. These activities have been grouped according to four general categories: instructional activities; research/creative activities; university service; and professional activities/public service. These categories include the following types of activities:

Instructional Activities

Regularly scheduled course instruction;

Non-credit instruction;

Supervising independent/special study;

Student advising;

Giving oral examinations;

Course preparation;

Other instructional activities. (Annotations to Table 1 on page 42 in this section describe some of the activities included as "other instructional activities.")

Research/Creative Activities...

.. Original Research/Creative Activities

Creation of art or new knowledge; e.g., scientific experiments, dramatic or musical compositions, painting, fieldwork (not part of a course);

Writing or publishing articles and books;

Supervising research staff;

Contact with student research assistants;

Developing project proposals and fund applications;

Reading journals and other literature, viewing art, attending concerts, etc., where these have a direct bearing on original research or creative activities;

Exchange of research ideas with colleagues;

Musical, dramatic or dance rehearsals for faculty (not student) performances;

Practice for athletic events (physical education faculty only).

.. General Scholarly/Creative Development

Reading journals and other literature, viewing art, attending concerts, etc., for purposes of general scholarly development;

Maintaining skills required for creative work, e.g., practicing musical instruments.

University Service

Department administrative or committee duties;

Serving on Academic Senate committees;

Interdepartmental administrative duties;

Campus administration;

Participating in student organizations;

Other UC committee work.

Professional Activities/Public Service

Serving as journal referee or journal editor, reviewing manuscripts for publication;

Administrative or other official capacity in a professional society;

Attending meetings and other work for professional societies;

Participation in evaluative procedures of other universities and research institutes;

Public service -- campus and local community, state agencies, federal agencies and foundations;

Professional colloquia.

The specific activities for each general category were listed as examples on the materials sent to each faculty member in the sample. This list of examples was intended as an illustrative rather than an exhaustive selection of activities.

* * *

Tables in the earlier part of this section showed only what instructional activities the I&R portion of the faculty paycheck purchased. In Table 4, however, the distribution of all UC-related activities of full-time regular faculty members is presented. Estimates are reported per person, not per FTE. Although only full-time regular faculty are shown, the estimates represent over 98 percent of regular faculty respondents, since nearly all regular faculty are full-time employees when "Organized Research" funding is taken into account.

Table 4 shows that full-time regular faculty members spent an average of 62.5 hours a week on all UC-related activities. The largest portion

TABLE 4

SUMMARY OF ALL UC-RELATED ACTIVITIES
AMONG FULL-TIME REGULAR FACULTY (REGARDLESS OF THEIR FUNDING SOURCES)

Average Hours per Week, 1977-78 Academic Year

Confidence Limits Are Shown at the 95% Level

TOTAL, ALL UC-RELATED ACTIVITIES	62.5 †
Upper Confidence Level	*63.6*
Lower Confidence Level	*61.4*
ALL INSTRUCTIONAL ACTIVITIES	27.1
Upper Confidence Level	*27.9*
Lower Confidence Level	*26.3*
RESEARCH/CREATIVE ACTIVITIES	22.9
Upper Confidence Level	*23.9*
Lower Confidence Level	*21.9*
UNIVERSITY SERVICE	7.5
Upper Confidence Level	*8.1*
Lower Confidence Level	*6.9*
PROFESSIONAL ACTIVITIES/PUBLIC SERVICE	4.9
Upper Confidence Level	*5.5*
Lower Confidence Level	*4.3*
NO. OF FULL-TIME REGULAR FACULTY REPORTING	1997

† Column addition differs slightly from total shown because of rounding.

of time was spent on instructional activities -- 27.1 hours.* Time spent on research/creative activities (22.9 hours) was a close second to instructional activities. University service and professional activities/public service trail far behind in third and fourth place (7.5 and 4.9 hours respectively).

Although the classification of activities on pages 49-51 distinguishes between original research/creative activities, and activities which contribute to general scholarly development and maintenance of skills needed for creative work, this refinement of the "research/creative activities" category was adopted only in time for the Spring Quarter questionnaire. Therefore, the full-year data shown in Table 4 do not provide estimates for the detailed categories. Analysis of the Spring Quarter data showed that for every hour spent on general scholarly/creative development, approximately three hours were spent on original research/creative activities (6.3 hours a week versus 19.4 hours).

Table 5 presents data on those weekly hours of non-instructional activities which were considered by faculty members to contribute to their instructional activities. As in Table 4, estimates are shown only for full-time regular faculty.

For these regular faculty, the supplementary contribution to instructional activities amounted to an average of 7.4 hours a week. Most of these

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* The time shown for instructional activities in Table 4 is somewhat less than what is shown for faculty with 100 percent I&R FTEs in Table 1 (27.1 hours versus 28.4 hours). Table 4 shows data per full-time faculty member, and thus includes data for faculty with OR funding.

TABLE 5

CONTRIBUTION OF NON-INSTRUCTIONAL ACTIVITIES TO INSTRUCTIONAL ACTIVITIES AMONG FULL-TIME REGULAR FACULTY (REGARDLESS OF THEIR FUNDING SOURCES)

1977-78 Academic Year

	Average Weekly Hrs. (A)	Contribution to Instruction: Hours (B)	Contribution to Instruction: Percent ([B/A] x 100)
NON-INSTRUCTIONAL ACTIVITIES:			
RESEARCH/CREATIVE ACTIVITIES	22.9	6.0	26.2
UNIVERSITY SERVICE	7.5	0.8	10.7
PROFESSIONAL ACTIVITIES/ PUBLIC SERVICE	4.9	0.6	12.2
Total Hours of Supplementary Contribution to Instructional Activities		7.4	
Total Direct Hours of Instructional Activities		27.1	
TOTAL DIRECT AND INDIRECT (SUPPLEMENTARY) HOURS OF INSTRUCTIONAL ACTIVITIES		34.5	
NO. OF FULL-TIME REGULAR FACULTY REPORTING		1997	

hours (6.0) represent research/creative time which secondarily served instructional activities. Less than an hour apiece was contributed by university service and by professional activities/public service.

Over a quarter of the time devoted to research/creative activities contributed to instructional activities, compared to a little over ten percent of university service, and about 12 percent of professional activities/public service.*

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* Clearly, instructional activities and research/creative activities are often interrelated, and supplement one another. An additional item was used with the Spring Quarter questionnaire to obtain an indication of the extent to which instruction contributes to research. The question posed was "Considering your UC instructional activities in their broadest aspect, to what extent do these activities contribute to the quality of your research?". Among full-time regular faculty, 21 percent said that instructional activities contributed "a great deal" to their research. In contrast, only six percent said instructional activities contributed "very little, or not at all." The remaining 73 percent were split evenly between those who said "quite a bit" or "some, but not too much."

VI. ACTIVITIES OF THE IRREGULAR FACULTY

The tables in this section include data for irregular faculty respondents in our study. All these respondents reported during the Winter Quarter and all held the title of either lecturer or supervisor. The irregular faculty sample for 1977-78 is small -- only 123 respondents. Seventy respondents are full-time university employees, of whom 56 have I&R FTEs of 100 percent. Because of the small numbers in these groups, the confidence limits are relatively large. Therefore, the data in this section should be interpreted cautiously.

A. INSTRUCTIONAL ACTIVITIES

The focus in Tables 6, 7 and 8 is on the time irregular faculty members spend on instructional activities and, accordingly, the calculations of the time estimates are based on I&R FTEs. From the perspective of fiscal accounting, these tables answer questions about what activities are being purchased for each I&R unit of expenditure. These tables show weekly estimates for all irregular faculty and, separately, estimates for irregular faculty with 100 percent I&R FTEs. The mean hours for activities were calculated by summing the reported hours and dividing by the total sum of their FTEs; in the case of faculty with 100 percent I&R FTEs, the number of FTEs and the number of people in the group are equivalent.

The time spent on instructional activities was reported under the same seven categories described in the previous section (see page 41).

Table 6 shows that irregular faculty with 100 percent I&R FTEs spent an average of 38.5 hours a week on all instructional activities during the 1977-78 Winter Quarter. Over half of this time was spent in direct student contact (20.0 hours out of 38.5). Regularly scheduled course instruction (12.4 hours) consumed more hours than any other activity involving direct student contact. Average time spent on student advising was 4.9 hours a week and supervising independent/special study, 2.0 hours. The other two activities involving direct student contact, non-credit instruction and participating in oral examinations, consumed much less time (0.4 hours and 0.2 hours respectively).

For every hour spent teaching scheduled courses, roughly the equivalent time was spent on course preparation (12.4 hours and 11.0 hours respectively). In contrast, the regular faculty with 100 percent I&R FTEs spent 5.8 hours on scheduled course instruction, and 10.8 hours on course preparation, almost a 1:2 ratio. This suggests that a high proportion of the irregular faculty respondents (who are mostly lecturers) teach more than one section of the same course, thus requiring less course preparation than regular faculty. An additional 7.5 hours a week was spent on "other instructional activities" (e.g., grading papers and exams, reading dissertations, etc.).

As stated, the figures referred to above reflect the estimates for irregular faculty with 100 percent I&R FTEs. The estimates shown for all irregular faculty in Table 6 show the hours of activity purchased per FTE, not per person. The addition of faculty with less than 100 percent I&R FTEs results in higher estimates for the combined group of irregular

TABLE 6

SUMMARY OF INSTRUCTIONAL ACTIVITIES AMONG IRREGULAR FACULTY
Average Hours per week per I&R FTE

Confidence Limits Are Shown at the 95% Level

	1977-78 Academic Year Winter Quarter Only *	
	100% I&R FTE	All Irreg. Faculty
TOTAL, ALL INSTRUCTIONAL ACTIVITIES	38.5	44.8
Upper Confidence Level	*46.1*	*49.8*
Lower Confidence Level	*30.9*	*39.9*
DIRECT STUDENT CONTACT		
REGULARLY SCHEDULED COURSE INSTRUCTION	12.4	12.0
Upper Confidence Level	*19.3*	*15.2*
Lower Confidence Level	*5.5*	*8.8*
NON-CREDIT INSTRUCTION	0.4	0.5
Upper Confidence Level	*0.8*	*0.9*
Lower Confidence Level	*0.0*	*0.2*
SUPERVISING INDEPENDENT/SPECIAL STUDY	2.0	3.1
Upper Confidence Level	*3.0*	*4.3*
Lower Confidence Level	*1.1*	*2.0*
STUDENT ADVISING	4.9	6.2
Upper Confidence Level	*6.3*	*7.4*
Lower Confidence Level	*3.6*	*5.0*
GIVING ORAL EXAMS	0.2	0.2
Upper Confidence Level	*0.6*	*0.4*
Lower Confidence Level	*0.0*	*0.0*
SUBTOTAL, ALL DIRECT STUDENT CONTACT	20.0 †	22.0
Upper Confidence Level	*27.4*	*25.7*
Lower Confidence Level	*12.5*	*18.4*
COURSE PREPARATION	11.0	13.1
Upper Confidence Level	*14.0*	*15.5*
Lower Confidence Level	*8.2*	*10.7*
OTHER INSTRUCTIONAL ACTIVITIES	7.5	9.7
Upper Confidence Level	*9.7*	*12.3*
Lower Confidence Level	*5.2*	*7.1*
NO. OF I&R FTEs	56.0	83.6
NO. OF FACULTY REPORTING	56	123

* Because the Fall Quarter sample of irregular faculty was unrepresentative, data for this period are not included. No data on irregular faculty were collected during the Spring Quarter.

† Column addition differs slightly from total shown because of rounding.

faculty.* For example, the average weekly hours, per FTE, for all instructional activities is close to 45 hours. This is approximately six hours higher than that reported for irregular faculty with 100 percent I&R FTEs. Most of this six hour difference is equally divided among direct student contact, course preparation, and "other instructional activities."

Level of Course Instruction

As explained on page 45, the 1977-78 questionnaires did not obtain information on the level of course instruction from the time budgets. Instead, this was obtained through two supplementary items. The proportionate distributions of hours obtained from the supplementary items were applied to the hourly estimates obtained from the time budgets. In this way, we derived inferential estimates of the time spent on scheduled course instruction and on independent/special study courses at the three levels. The findings, synthesized from the two sources of data and presented in Tables 7 and 8, seem reasonable but should be interpreted cautiously.**

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* In one instance, regularly scheduled course instruction, the estimate for irregular faculty with 100 percent I&R FTEs is higher than that for all irregular faculty. The difference between these estimates is not statistically significant. The slightly higher figure for faculty with 100 percent FTEs reflects the modest impact of a few deviant cases in a small sample.

** As indicated in the previous section, future versions of the questionnaire will ask respondents to indicate how many of the hours reported in their time budgets for scheduled course instruction were spent on lower division courses, how many on upper division, etc. The same breakdown will be asked for reported time on independent/special study supervision. This will avoid the necessity of synthesizing these data from two sources.

In Table 7 the hours reported for regularly scheduled course instruction are distributed by course level. Irregular faculty members with 100 percent I&R FTEs spent 29 percent of these hours teaching lower division courses. For upper and graduate division courses, the proportion of time spent was somewhat higher (35% and 36% respectively).

In contrast, the data for all irregular faculty show that, per FTE, graduate course instruction receives the smallest share of time -- 29 percent. The remaining time is about equally divided between lower and upper division course instruction.

Table 8 presents data on the hours spent on independent/special study supervision by level. For both faculty with 100 percent FTEs and all irregular faculty, this time is devoted primarily to upper division and graduate students.

B. ALL UC-RELATED ACTIVITIES

Data on all UC-related activities are grouped according to four categories: instructional activities; research/creative activities; university service; and professional activities/public service. See pages 49-51 for a description of the specific activities included under each of these categories.

Table 9 shows the average time spent on the full range of UC-related activities carried out by irregular faculty who were full-time University employees, regardless of the funding source of their UC paychecks.

TABLE 7

LEVEL OF REGULARLY SCHEDULED COURSE INSTRUCTION
(INCLUDING LAB AND FIELDWORK) AMONG IRREGULAR FACULTY

Average Hours Per Week Per I&R FTE

	1977-78 Academic Year Winter Quarter Only *			
	Proportionate Distribution **		Average Weekly Hrs.	
	100% I&R FTE	All Irreg. Faculty	100% I&R FTE	All Irreg. Faculty
LOWER DIVISION	29	35	3.6	4.2
UPPER DIVISION	35	36	4.3	4.3
GRADUATE LEVEL	36	29	4.5	3.5
TOTAL, ALL LEVELS	100%	100%	12.4 hrs.	12.0 hrs.
NO. OF I&R FTEs			56.0	83.6
NO. OF FACULTY REPORTING			56	123

* Because the Fall Quarter sample of irregular faculty was unrepresentative, data for this period are not included. No data on irregular faculty were collected during the Spring Quarter.

** The proportions shown above were not obtained from the respondents' time budgets but from data reported during the Winter Quarter on a supplementary item. These proportions were applied to the hourly estimates obtained from time budgets for the Winter Quarter to produce the distribution of hours shown in the right hand columns. For details see pages 59-60.

TABLE 8

LEVEL OF INDEPENDENT/SPECIAL STUDY SUPERVISION
AMONG IRREGULAR FACULTY

Average Hours Per Week Per I&R FTE

	1977-78 Academic Year Winter Quarter Only *			
	Proportionate Distribution **		Average Weekly Hrs.	
	100% FTE	All Irreg. Faculty	100% FTE	All Irreg. Faculty
LOWER DIVISION	15	14	0.3	0.4
UPPER DIVISION	43	37	0.9	1.1
GRADUATE LEVEL	42	49	0.8	1.5
TOTAL, ALL LEVELS	100%	100%	2.0 hrs.	3.1 hrs.†
NO. OF I&R FTEs			56.0	83.6
NO. OF FACULTY REPORTING			56	123

* Because the Fall Quarter sample of irregular faculty was unrepresentative, data for this period are not included. No data on irregular faculty were collected during the Spring Quarter.

** The proportions shown above were not obtained from the respondents' time budgets but from data reported during the Winter Quarter on a supplementary item. These proportions were applied to the hourly estimates obtained from time budgets for the Winter Quarter to produce the distribution of hours shown in the right hand columns. For details see pages 59-60.

† Column addition differs slightly from total shown because of rounding.

TABLE 9

SUMMARY OF ALL UC-RELATED ACTIVITIES
AMONG FULL-TIME IRREGULAR FACULTY (REGARDLESS OF THEIR FUNDING SOURCES)

Average Hours per Week, 1977-78 Academic Year, Winter Quarter Only *

Confidence Limits Are Shown at the 95% Level

TOTAL, ALL UC-RELATED ACTIVITIES	57.9
Upper Confidence Level	*62.6*
Lower Confidence Level	*53.2*
ALL INSTRUCTIONAL ACTIVITIES	35.6
Upper Confidence Level	*40.0*
Lower Confidence Level	*31.1*
RESEARCH/CREATIVE ACTIVITIES	13.8
Upper Confidence Level	*17.3*
Lower Confidence Level	*10.4*
UNIVERSITY SERVICE	4.4
Upper Confidence Level	*5.9*
Lower Confidence Level	*3.0*
PROFESSIONAL ACTIVITIES/PUBLIC SERVICE	4.1
Upper Confidence Level	*5.7*
Lower Confidence Level	*2.6*
NO. OF FULL-TIME IRREGULAR FACULTY REPORTING	70

* Because the Fall Quarter sample of irregular faculty was unrepresentative, data for this period are not included. No data on irregular faculty were collected during the Spring Quarter.

Full-time irregular faculty members spent an average of 57.9 hours a week on all UC-related activities. The largest portion of this time (35.6 hours) was devoted to instructional activities. A little less than one-quarter of the 57.9 hours was spent on research/creative activities (13.8 hours). University service (4.4 hours) and professional activities/public service (4.1 hours) each accounted for less than ten percent of the total time devoted to UC-related activities.

VII. CONCLUDING COMMENTS

The finding that full-time regular faculty spend over 60 hours a week on UC-related professional activities may come as a surprise to the layman outside of academia who is used to thinking in terms of 35 or 40 hour work weeks. Those readers who measure a faculty member's instructional workload only by the number of hours spent on the lecture platform may be startled to learn that this time represents so small a proportion of the total. Not so visible is the preparation, the rehearsal behind the performance, when the faculty are buried in the library stacks or working behind closed doors. Such activities, normally not known to outsiders, now have been revealed and their magnitude determined by rigorous methods.

Although the amount of time the average faculty member spends on the lecture platform teaching scheduled classes was known prior to this study, this hardly constitutes the kind of detailed knowledge about the wider variety of activities which is needed and has now been provided by this study. To be sure, certain expectations have long been held in academic circles about the amount of time faculty <u>should</u> devote to preparation and to research. Professional tradition suggests that regular faculty spend approximately two hours preparing for each hour in the classroom, and devote nearly as much time to research as to instruction. This is the lore and what other studies have shown and, in these respects, the current study has no surprises to present.

However, these long held assumptions were based on folklore or on studies which, as we have shown earlier, often provided no sound basis for regarding these assertions as accurate. For still other activities, such as unscheduled classes, student advising, public service, there was no prior solid evidence, no prescribed formal or informal standards, not even folklore for making a guess. And little indeed was known about the connection between various kinds of activities, for example, the payoff for teaching that derives from scholarly research. Surely those findings are new and needed and may even surprise insiders. A major contribution of this study is its wealth of detailed valid information on the entire array of UC-related activities, their distribution over a very large and heterogeneous faculty, and their interrelations. The limited findings from other studies were of doubtful validity because they depended on the long range recall and mental averaging abilities of whatever portion of the faculty responded. Thus the current study not only validates the conclusion of some other studies which reported faculty workloads of about 60 hours per week, it also yields more accurate information on the allotment of time within the work week.*

Even so, this report does not provide a complete picture of faculty effort in that no attempt was made to survey the summer weeks or the quarter breaks. However, many faculty are involved in university-related activi-

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* "Both historically and currently, faculty tend to work between 55 and 60 hours a week." Robert T. Blackburn, "The Meaning of Work in Academia," in Doi, ed. op., cit., p. 77. "During our pilot test of our own Faculty Activity Analysis, the meaningful range of reported average hours per week was approximately 55 to 65 hours per week." Leonard Romney, National Center for Higher Education Management Systems, as quoted in Maryland Council for Higher Education, Faculty Activity Survey (Annapolis, 1974), p. 30.

ties during these periods. How much involvement is attested, for example, by one respondent whose comments at the end of the questionnaire included this statement:

> "I spent six weeks during the summer, attending and participating in two long conferences. Such conferences, lasting 2-4 weeks each, are becoming increasingly typical these days and involve tremendous preparation on the part of the faculty. In my case, it represents over 12.5 percent of the year's work. This is not special to this year. Of late, such activities are present every year and must be regarded as a regular part of the academic life."

Another respondent underscored the importance of summer work and reminded us that there are other "vacation" periods when additional work is done:

> "The public seems to have the impression that during Christmas and summer recess and during the brief breaks between Winter and Spring Quarters, the faculty has total vacation. The questionnaire does not reveal how wrong this impression is.... It is during summers I get most of the writing done about the research for which I have gathered materials, annotated much collateral reading, set up computation sequences, and the like during the regular academic year. Summers also usually involve one or two professional meetings that use up five to ten days. It is rare that during a summer recess I am able to take as much as ten days off for something like a vacation. The rest of my time goes for research, writing up records, revising courses and/or preparing new courses, meetings and correspondence with and for professional societies."

This study did not totally ignore summer activity. Since we could not cover this period contemporaneously, there was no alternative but to use a retrospective question, despite the obvious and acknowledged limitations of such items. Respondents were asked to estimate the number of hours, if any, they spent on instructional activities during the past summer.

The average time spent on instructional activities alone over the 13-week summer period amounted to nearly 55 hours, or over four hours a week. Since this item was asked only of faculty employed under a nine-month con-

tract, these summer hours represent effort that was not financially compensated by the University.

The comments quoted on the preceding page about summer activity were responses to the open-ended item at the close of the questionnaire. This item asked respondents to indicate any elements of their work that were not adequately covered in the questionnaire, and to suggest any ways the survey could be improved in the future.

A random subsample of about one-quarter of the questionnaires (559) was carefully examined, and the comments to the open-ended item were classified and coded under various categories. That 57 percent of this subsample did write comments -- often lengthy -- suggests the interest the inquiry generated, the faculty's conscientiousness, and their concern to remedy any omissions or misinterpretations that might have occurred in the data.

Some of these comments, particularly in the Fall Quarter, were technical criticisms of the procedures, and these were helpful to us in clearing up some of the ambiguities of the instrument.

A considerable number of comments reflected faculty concern that the specific days, or weeks, or quarters, in which they were surveyed were not typical of their long-run pattern of activity. This concern on the part of individual respondents is understandable. Nevertheless, the systematic rotation of report days among faculty assures the representativeness of the aggregate findings. Over the large sample, those caught in light periods are counterbalanced by those caught in heavy periods.

Our obligation in this study was to provide an accurate, generalizable, comprehensive and detailed description of the amount of time the faculty spent on UC-related activities. We have met this responsibility, objectively and scientifically, and we believe the quantitative findings we have reported will help to show the faculty in a true light. The fact that we have not gone beyond our appointed task -- the study of quantity -- does not mean that we think numbers tell the whole story.

Indeed, some respondents (about one out of every ten who wrote any comments) reminded us -- sometimes harshly -- that quality of effort as well as quantity should be taken into account in any complete appraisal. The comments of a few may serve to remind the reader of this not-to-be neglected dimension.

> "I have no taste for the forcing of scholarship into the managerial mould of accountability though I appreciate the overwhelming...might of political force. This questionnaire tells you nothing about the quality of my thinking and about the depths of my dedication."

> "I am shocked, indeed appalled, that no effort is made in this survey to gauge the research output -- as compared to effort -- of faculty, i.e., books, articles, etc., as well as the kinds of professional and public service they are undertaking."

In spite of their criticisms and clear reservations about the limited focus of this survey, these respondents cooperated in completing the questionnaire. And although the open-ended item asked specifically for critical comments, over twelve percent of those who wrote anything included complimentary remarks about this undertaking.

* * *

In respect to the number of weekly hours spent on their professional activities, the UC faculty resemble certain other occupational groups, all of which share this characteristic: they are "independent" workers whose tasks are not routinized and whose hours are not rigidly prescribed. Scitovsky, in his arresting inquiry into the "Joyless Economy" notes that independent workers in the U. S. such as self-employed managers and proprietors, farm managers, and physicians worked much longer hours than all male employees as a group.*

Scitovsky explains the longer hours for independent workers on the grounds that they are more involved in their work. People who can maintain interest in their work because they are able to vary their routine and tasks "seem to get more personally involved in their work and to find it more challenging and enjoyable. They are as likely to experience periods of tension and strain as anyone else, but their way of relieving such strain is not to stop working, but, on the contrary, to keep at it until their sense of accomplishment brings relief."**

If Scitovsky is correct, then the UC faculty members are clearly involved in their work. To some, the extent of their involvement came as a shock: one respondent wrote, "Unbelievable -- it's depressing to figure all this out. Getting to the bottom of my diary I realized.... I had 8 hours of

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* T. Scitovsky, The Joyless Economy: An Inquiry Into Human Satisfaction and Consumer Dissatisfaction (London: Oxford University Press, 1976), pp. 93-94.

** Ibid., pp. 94-95.

'other' time and, as specified on the form -- it was in fact for eating and sleeping. This questionnaire served as a consciousness raiser!". As Blackburn perceptively remarked: "What a professor does is not a job; what a professor does is to lead a distinctive way of life within a particular community of professional people -- a college or university faculty."*

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* Robert T. Blackburn, "The Meaning of Work in Academia," in Doi, ed., op., cit., p. 77.

APPENDIX A: ESTIMATING PROCEDURES

I. INTRODUCTION

The principal data collected from each individual respondent consisted of a time budget in which he or she was asked to account for the hours spent on each of several activities during each of two temporally adjacent time segments. The pairs of segments specified were:

Monday and Tuesday;
Tuesday and Wednesday;
Wednesday and Thursday;
Thursday and Friday;
Friday and Saturday-Sunday;
Saturday-Sunday and Monday.

Thus, each individual was asked to account for 48 hours (72 hours if one of the time segments in the combination was the weekend), and six equivalent random samples were generated during each calendar week, although the numbers in the various samples were not necessarily equal. The procedure was carried out over all the instructional weeks for the Fall, Winter and Spring Quarters (except for the short period prior to October 8, the date the collection of data began).

The objective was to analyze the data to estimate the mean number of hours devoted to each activity per week (i.e., giving the various weeks equal weight) per FTE. For data shown separately for those faculty with 100 percent FTEs, the average hours per week per person are identical to the average hours per FTE.

The formulas following are applicable to each type of activity reported.

II. DEVELOPMENT OF FORMULAS

a. Ratio-mean estimator.

Let H_{ijkl} be the two-day (or three-day) total hours of the i^{th} person reporting on the j^{th} day-combination of the k^{th} week of the l^{th} quarter;

let F_{ijkl} be the % FTE of the i^{th} person reporting on the j^{th} day-combination in the k^{th} week of the l^{th} quarter;

let n_{jkl} be the number of persons reporting on the j^{th} day-combination in the k^{th} week of the l^{th} quarter.

$r._{jkl} = \Sigma H_{ijkl}/\Sigma F_{ijkl}$; i.e., the number of hours per FTE for the j^{th} day-combination in the k^{th} week of the l^{th} quarter;

$r.._{kl} = \Sigma r._{jkl}/2$ is the average number of hours per FTE for the k^{th} week of the l^{th} quarter;

$r..._{l} = \Sigma r.._{kl}/m$, where m is the number of weeks. This is the average hours per week per FTE in the l^{th} quarter.

$r.... = \Sigma r..._{l}/3$ is the overall average hours per week per FTE.

b. Variance of the ratio-mean estimator.

$$\mathrm{Var}(r._{jkl}) = \left(\frac{1}{\Sigma F_{ijkl}}\right)^2 [\mathrm{Var}(\Sigma H_{ijkl}) + r^2._{jkl}\mathrm{Var}(\Sigma F_{ijkl}) - 2r._{jkl}\,\rho HF\sqrt{\mathrm{Var}(\Sigma H_{ijkl})\ \mathrm{Var}(\Sigma F_{ijkl})}]$$

Where $Var(\Sigma H_{ijkl}) = \Sigma(H_{ijkl} - \bar{H}_{.jkl})^2$ and

$\bar{H}_{.jkl} = \Sigma H_{ijkl}/n_{jkl}$

$Var(\Sigma F_{ijkl}) = \Sigma(F_{ijkl} - \bar{F}_{.jkl})^2$ and

$\bar{F}_{.jkl} = \Sigma F_{ijkl}/n_{jkl}$

ρHF is the correlation coefficient between H and F.

Then $Var\ (r_{..kl}) = \Sigma[Var(r_{.jkl})]/4$

$Var\ (r_{...l}) = \Sigma[Var(r_{..kl})]/m^2$, where m is the number of weeks in the 1^{th} quarter

$Var(r....) = \Sigma[Var(r_{...l})]/9$

c. Confidence interval.

$SE(r....) = [Var(r...)]^{\frac{1}{2}}$

$CI = r.... \pm 1.96\ SE\ (r....)$

III. FINITE FACTOR

This can be approximated with (N-n)/(N-1) or 1-n/N, where n is the sample size and N is the size of the population (sampling frame).

APPENDIX B: FREQUENCY DISTRIBUTIONS OF RESPONSES ON KEY VARIABLES

Figures 1 and 2, which follow, show the frequency distribution of reported hours for two key variables -- all instructional activities and all UC-related activities for a two-day period. Hours reported by respondents who were assigned report-days that included a weekend are not included. All "Friday-Saturday/Sunday" cases and all "Saturday/Sunday-Monday" cases have been removed from the data base. Thus, the responses shown in the following figures underrepresent by one-half those for Mondays and for Fridays (days which happen to be those which respondents judged to be one of their heaviest days and one of their lightest days respectively). The responses shown are those reported by full-time regular faculty respondents.

The responses were adjusted to give equal weight to each of the three quarters. However, no weights were applied to compensate for differential sampling rates or completion rates either by week (within a quarter) or by day pair combination. Fractional hours were rounded to the nearest whole hour, e.g., 1.50 hours were rounded to 2 hours, 1.25 hours to 1 hour. Reported time of less than .50 hours was rounded to zero hours.

Figure 1 shows the sum of all hours reported by respondents for two weekdays for all instructional activities. Since the distribution is not bimodal, the estimates shown in Table 1 are not the result of a large group of overworked faculty counterbalancing another large group of "shirkers." Most of the responses in Figure 1 are grouped over a broad middle range of values. This is expected since the data cover only a two-day segment of time and show hours spent on only instructional activity. If data had been reported for entire weeks rather than the brief two-day segments, the distribution undoubtedly would have been more closely grouped.

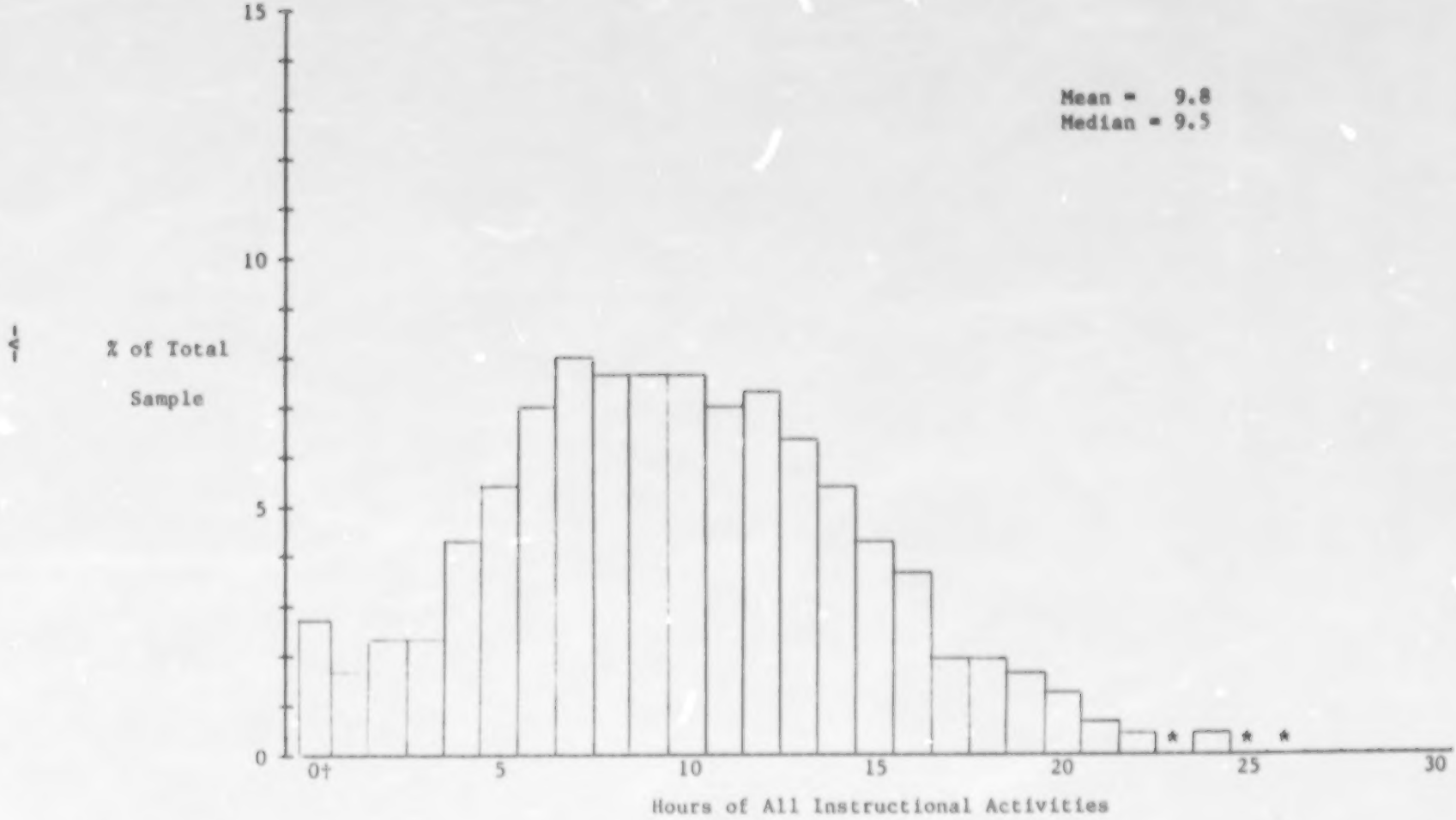
Figure 2 shows the distribution of reported hours spent on all UC-related activities for the two-day periods. This includes total time spent on instruction, research/creative activities, university service, and professional activities/public service.

In this figure the responses are even more clustered than in Figure 1. This is not surprising since time spent on a specific type of activity such as instruction may vary considerably over two-day periods, while the total time spent on a whole group of activities stays relatively constant.

FIGURE 1

DISTRIBUTION OF REPORTED HOURS SPENT ON ALL INSTRUCTIONAL ACTIVITIES OVER TWO-DAY PERIODS (WEEKENDS EXCLUDED) -- 1977-78 ACADEMIC YEAR

Shown for Full-Time Regular Faculty

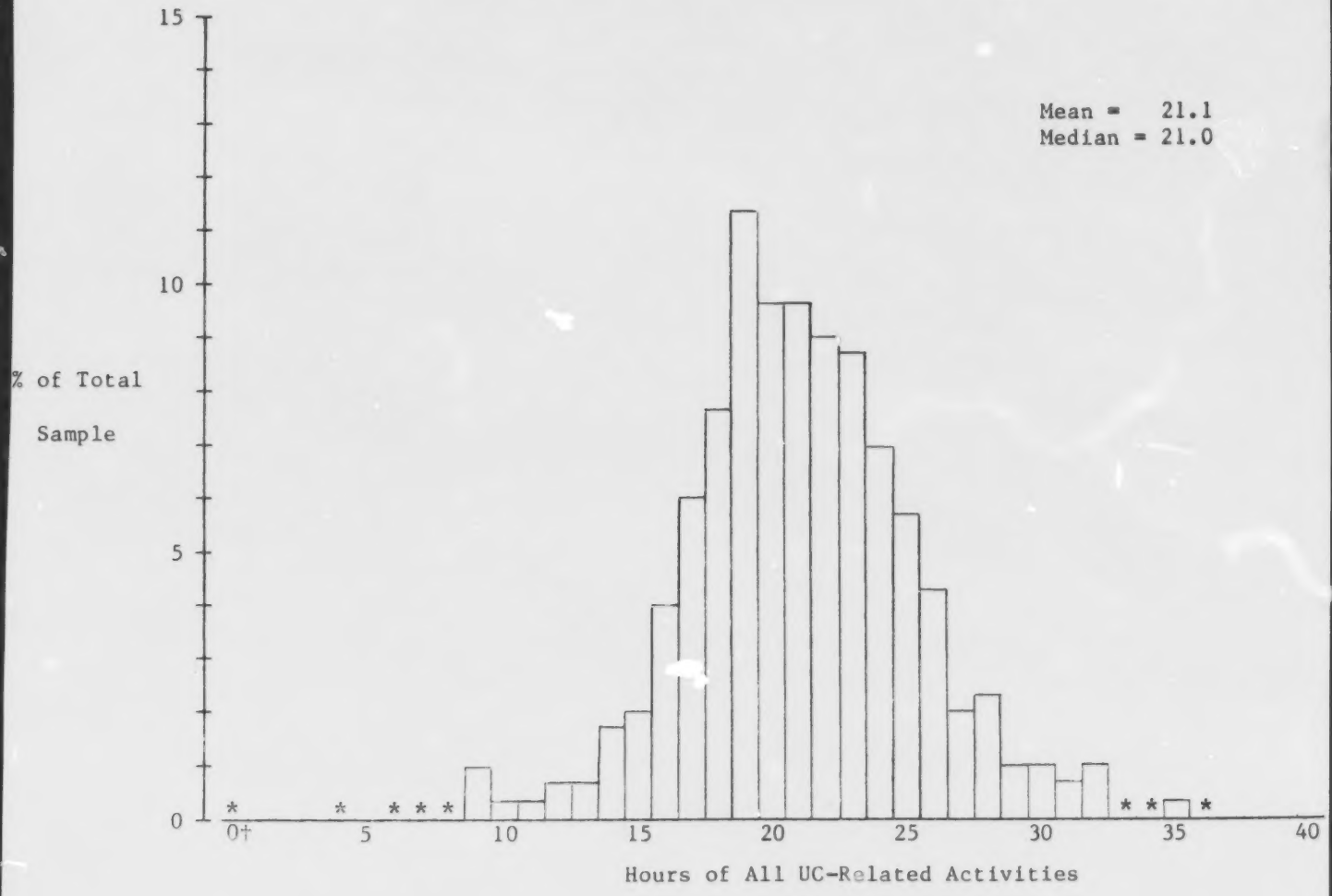


† Includes those who reported less than 1/2 hour.
* Too few to chart (less than .3%).

FIGURE 2

DISTRIBUTION OF REPORTED HOURS SPENT ON ALL UC-RELATED ACTIVITIES OVER TWO-DAY PERIODS (WEEKENDS EXCLUDED) -- 1977-78 ACADEMIC YEAR

Shown for Full-Time Regular Faculty



† Includes those who reported less than 1/2 hour.
* Too few to chart (less than .3%).

APPENDIX C: METHODOLOGICAL NOTES

Due to time constraints, the Fall Quarter survey was conducted without the usual thorough pretesting of instruments and without experimental trials of the novel methods employed, and with no time for weighing alternative policy decisions on the scope of the inquiry. Thus, it was agreed that the Fall Quarter survey would be defined as a pilot study subject to modification in later quarters.

Although the Fall Quarter survey did provide valid and accurate data, comparable in most respects with those from later quarters, a number of subsequent minor modifications were made to improve the instruments. Design changes were also made in the course of this study; the temporal scope of the study was revised as well as the criteria for sample eligibility.

Changes in Time Coverage

The original plan was to collect data over <u>all</u> weeks of each quarter.* Thus, we would have covered not only the instructional weeks, but also the weeks of registration and of final examinations. This plan was modified during the Winter Quarter to cover only instructional weeks. It was decided to omit registration and final examination weeks because of the wide variations in the way different campuses handle these procedures.

Even though the survey was limited to only instructional weeks, some complications still had to be resolved. There is no completely uniform calendar for the eight campuses surveyed. The first and last days of instruction can vary a few days between one campus and another. As a result, the weeks of data collection varied slightly for different campuses. However, we constructed "analysis weeks" that conformed to the

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* Because the survey could not be fielded until October 8th, we did not collect data during the first two weeks of the Fall Quarter. At this time, we cannot measure the effect this omission may have had on the Fall Quarter estimates. A special analysis not presented in this report shows that omitting the first two instructional weeks of the Winter and Spring Quarters would not significantly have changed the overall estimates for those quarters for all instructional activities and for all UC-related activities. However, some changes were evident in certain categories, e.g., course preparation time was generally somewhat higher in the first two instructional weeks of a quarter than it was overall, while time for research/creative activities was generally lower in the early weeks.

We may tentatively assume that these differences would also be found in the Fall Quarter data. However, a conclusive appraisal of the effect of not covering the early weeks in that quarter must wait until we can analyze the 1978-79 Fall Quarter data which will include all instructional weeks.

instructional calendar of Berkeley, Los Angeles and San Diego, all of which did have uniform starting and closing dates of instruction for each of the three quarters.*

Data collected for instructional days that fell outside this instructional calendar (either earlier or later) were merged with the data in the nearest "analysis week." For example, Davis, Santa Cruz, Santa Barbara and Riverside began instruction earlier in the Winter Quarter than Berkeley, Los Angeles, Irvine and San Diego. Data collected from the first four campuses during these early days of the quarter were merged with the first full week's data collected from all campuses.

Changes in Eligibility Criteria

The criteria for eligibility for inclusion in the study were revised during the course of the study and the new criteria were applied rigorously. Most of the faculty deemed ineligible were those with irregular rank surveyed in the Fall Quarter. As mentioned earlier in this report, the irregular faculty sample was atypical because it was drawn from a summer payroll that did not include the majority of the irregular faculty.

Other respondents excluded from the study were faculty who reported during final exam weeks in the Fall Quarter, and a few respondents who returned questionnaires after the beginning of data analysis. The small number of faculty who were too ill to participate in the study on their original days were reassigned report days, except for three faculty members who were seriously ill over a long period of time and therefore ruled ineligible.

Changes in the Study Instrument

A supplementary item in the Fall Quarter questionnaire asked the respondent to report on the number of courses taught that quarter and on the number of weekly class hours. All of this was to be reported by the level of the courses. This item was a late addition to the questionnaire and thus there was very little time to pretest it. The question inadvertently did not specify whether independent and special study courses were to be included or excluded. As a result, there was no way of knowing what the reported data from this question really represented.

Furthermore, early returns indicated that the data on the number of courses taught were meaningless since it was discovered that the definition of "a course" varies from campus to campus. Since what constitutes a half-course on one campus is defined as a full course on others, it was not possible to combine the figures.

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* Berkeley and Los Angeles together represent the majority of the UC faculty.

The questionnaire was modified for the Winter and Spring Quarters and the original item was broken down into two items; one item asked respondents for the number of weekly hours of scheduled course instruction they were teaching this quarter, and the other item asked for the number of hours during the last calendar week that respondents personally met with students taking independent/special study courses from them. Again, these hours were to be reported by level. These modified items involved some recall, and in the case of independent/special study supervision, recall of an unscheduled, episodic activity. Thus, the data obtained on this latter activity varied considerably from the comparable data derived from the time budgets. As described earlier on pages 45-46, because of this problem we made only partial use of the data obtained from these items, taking only the proportional distributions of time by course level and applying these distributions to the hourly estimates obtained from the time budgets. In this way we synthesized the data shown earlier in Tables 2, 3, 7 and 8.

Future versions of the questionnaire will resolve this problem by asking respondents to indicate how many of the hours reported in their time budgets for scheduled course instruction were spent on lower division courses, how many on upper division, etc. The same breakdown will be asked for hours of independent/special study supervision reported in the time budgets. This will avoid having to synthesize data from two different sources on the instrument and should provide data of greater validity.

Another change in the questionnaire involved the category for "other instructional activities" on the time budget. As explained earlier on page 42 and shown on page 44 (Table 1), a number of instructional activities that were subsumed in this category in the Fall Quarter questionnaire were reported separately in the later versions for Winter and Spring.

An additional questionnaire change involved the category of research/creative activities on the time budget. The Spring Quarter questionnaire was changed so that respondents identified how many of these hours were devoted to <u>original</u> research/creative activities and how many were spent on general scholarly/creative development.

All other instrument changes were very minor, usually involving format alterations or additional instructional notations.

APPENDIX D: ILLUSTRATIVE FIELD MATERIALS USED IN DATA COLLECTION

The basic instrument used in this study was the questionnaire. The following list shows the items on the questionnaire that provided the data for each table in this report. (The items listed here and illustrated in the following pages refer to the Spring version of the instruments.)

Table	Questionnaire Item
1	Q 1 and Q 4
2	Q 1 and Q 4; Q 9
3	Q 1 and Q 4; Q 8
4	Q 1 and Q 4
5	Q 1 and Q 4; Q 2 and Q 5
6	Q 1 and Q 4
7	Q 1 and Q 4; Q 9
8	Q 1 and Q 4; Q 8
9	Q 1 and Q 4

UNIVERSITY OF CALIFORNIA

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO

SANTA BARBARA • SANTA CRUZ

The respondents were sent this letter describing the aims of the study and urging their cooperation.

Dear Colleague:

You have been selected as part of a probability sample to participate in the Faculty Time-Use Study, and we urge your cooperation. The study is jointly sponsored by the Academic Council and the Systemwide Administration in response to a recommendation from the Academic Assembly. As you may know, for several years data on faculty activity have been collected through the Data System of Instructional Resources (DSIR). Legislators and others have sometimes made incorrect assumptions about faculty effort based on DSIR, on data which are often incomplete, and on anecdotal "evidence". This present survey is designed to provide more reliable data on faculty activity by use of a uniform method and a statistically valid sample. By presenting a picture based on valid data, we hope to correct any misconceptions which may exist.

The study is being conducted by the Institute for Research in Social Behavior (IRSB), an independent, non-profit research organization with a reputation for integrity and competence. IRSB has retained, as a study consultant for this project, Professor Herbert Hyman of Wesleyan University, an internationally recognized survey methodologist with experience in the field of time utilization. Questionnaires will be returned directly to IRSB, and individual responses will be treated with strict confidentiality. Results from the study will not, under any circumstances, be used to compare individuals, departments, or campuses, but will be reported only as Universitywide statistics. A summary of the final report will be published in the University Bulletin. Copies of the full report will be available at each campus.

Your cooperation is vitally important if the results of this study are to be valid and useful. We appreciate that many of you are very busy and that it will be difficult to find the time to report your activities. If the busiest among you don't participate, however, the study results will underestimate the amount of time faculty spend on UC activities. Therefore, we urge you to take the time to complete these forms and return them to IRSB.

If you have concerns about the implications of this study, please discuss them with your divisional chairman or with one of the members of the Academic Senate Special Committee which has endeavored to ensure that the study is sensitive to faculty prerogatives. The committee members are Professors Randolph Wedding, Chair (R), (telephone ext. 4320), Jackson Burgess (B), Sylvia Lane (D), Richard Sklar (LA), and Dean Lyman Porter (I). Technical questions and comments may be addressed to Dean Manheimer, President of IRSB (telephone 415-848-4253).

Sincerely,

John S. Galbraith
Chairman of the Academic Council

David S. Saxon
President

Institute for Research in Social Behavior

This was the cover page of the questionnaire.

Dear Faculty Member,

We need your help on the important Faculty Time-Use Study described in the accompanying letter. Your answers will be treated with complete confidentiality. Please don't sign your name to this questionnaire; a serial number on the last page identifies your form. The link between respondent names and their serial numbers is kept in my locked file at the Institute and will be destroyed after the data are in.

We recognize that it may be difficult to remember all the various activities which are relevant to this study and so we have included a diary to help you record your time. The diary is intended only as a worksheet and is not to be returned to us. **Even if you decide not to use the diary, read the General Instructions on the blue booklet before you fill out your questionnaire.**

At a later date we may be conducting brief telephone interviews with a small proportion of persons receiving this questionnaire in order to collect supplementary data, and to give faculty an opportunity to describe their activities in a less restricted way than is possible on a self-administered form.

Each respondent is asked to record his or her time-use for a specified two-day period (or one day plus weekend). The sum total of these assigned periods will serve to represent the faculty workload for the entire quarter. We have assigned Saturdays and Sundays as well as other days because it is not uncommon for faculty to do certain kinds of activities such as course preparation and research on weekends. It is important that you report only for the days specified even if you are ill, on vacation, or for other reasons, put in few or no hours related to University work or, on the other hand, put in unusually long hours. The days we are asking you to report on are:

_____ _____

Once you have completed your form, *please return it immediately to us* in the enclosed envelope. We greatly appreciate your participation in this study. Your cooperation is essential to ensure the representativeness of the findings. No one else can substitute for you in this survey. If you have any questions about how to complete the questionnaire, please call me at (415) 848-4253.

Sincerely,

Dean I. Manheimer
President

P.S. If any of the following applies to you, please check the proper box below but do not fill out the attached questionnaire. Please return the entire set of materials to us in the enclosed envelope.

- ☐ **Full-time Dean or Full-time Administrator**
- ☐ **On Full-time Leave this Quarter Without Pay**
- ☐ **On Sabbatical this Quarter (Including Sabbatical in Residence)**

A B C

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On the same double-page spread on which Questions 1, 2, 4 and 5 appeared, there were also instructional notes for the respondent, as shown below. Respondents were also referred to the "blue booklet" (the diary) for more general instructions on how to categorize activities.

Specific Instructions: (See blue booklet for General Instructions)

QUESTIONS 1 and 4:

- Record your time allocations for Questions 1 and 4 *only* for the days specified. Do *not* substitute other days and do not fill out in advance.
- Count 50 minute classes as 1 hour, 80 minute classes as 1½ hours, etc.
- If you teach a course jointly or with a TA, record all hours you personally were present in either class, lab or field.
- All time spent on student contact should be reported under categories I-A through E *except* social or semi-social contact and contact through participation in campus organizations.
- "Course preparation" should include only time spent preparing for courses you are teaching *now* or which you plan to teach *within the next quarter or two.*

QUESTIONS 2 and 5:

- If any of the time reported for Research / Creative Activities, University Service, Professional Activities / Public Service or Other activities also contributes to your Instructional Activities, record such time in the bracketed column to the right of IIA, IIB, III, IV and V.

TIME BUDGETS

The key items in the questionnaire were the time budgets -- Questions 1 and 4. These items were identical; Question 1 asked about the first day of assignment and Question 4, the second. For those who received a weekend/Monday assignment, Question 1 showed a total of 48 hours instead of 24; similarly for those reporting on a Friday/weekend assignment, Question 4 showed a total of 48 hours.

Question 1

Add up the data on your blue diary form and enter below. If you did not use the diary, give your best estimates, rounding to the nearest quarter hour.

I. INSTRUCTIONAL ACTIVITIES

DIRECT STUDENT CONTACT

A. **Regularly Scheduled Course Instruction** (include lab, field work, and giving examinations) _____hrs.

B. **Non-Credit Courses, Seminars, Colloquia and Symposia** _____hrs.

C. **Supervising Independent / Special Study** _____hrs.

D. **Student Advising** _____hrs.

E. **Giving Oral Examinations** _____hrs.

F. **Course Preparation** _____hrs.

◎ G. **Other Instructional Activities** _____hrs.

I. TOTAL INSTRUCTIONAL ACTIVITIES (add **A** through **G**) _____**hrs.**

◎ **II.** RESEARCH / CREATIVE ACTIVITIES

A. Original Research / Creative Activities _____hrs.

B. General Scholarly / Creative Development _____hrs.

◎ **III.** UNIVERSITY SERVICE _____**hrs.**

◎ **IV.** PROFESSIONAL ACTIVITIES / PUBLIC SERVICE _____**hrs.**

V. OTHER: Non-UC Work, Private Consulting, Leisure, Sleeping, etc. _____**hrs.**

TOTAL [add I through V and check to be sure your time adds to 24 hours] **24 hrs.**

Question 2 (and Question 5 for the second day assigned) ascertained the contribution of non-instructional activities to instructional activities.

Question 2

If any of the time reported in IIA, IIB, III, IV and V also contributed to Instructional Activities please indicate such time below.

(_____hrs.)

(_____hrs.)

(_____hrs.)

(_____hrs.)

(_____hrs.)

(_____hrs.)

☐ Check if none of the time reported contributed to Instructional Activities.

◎ **For activities preceded by this symbol — check blue diary or bookmark for examples.**

SUPPLEMENTARY ITEMS ON LEVEL OF INSTRUCTION

Questions 8 and 9 were used to obtain information on instruction by level. As explained earlier in this report, only partial use was made of the data obtained from these items in presenting the estimates shown in Tables 2, 3, 7 and 8.

Question 8

Indicate below the number of hours *during the last calendar week* (Sunday through Saturday including any holidays) you personally met with students taking independent or special study courses (e.g., 197-199, 297-299, 596-599, etc.) from you. Report these hours by academic level, i.e., lower division, upper division or graduate level.

☐ **Does not apply, I'm not giving such courses this quarter**

	Lower	Upper	Graduate	Total
No. of hours met with students in independent / special study last calendar week	_____hrs.	_____hrs.	_____hrs.	_____hrs.

☐ Giving such courses, but did not meet with students last calendar week

Question 9

Indicate below the number of *regularly scheduled* weekly class hours you are teaching this quarter. Report these hours by academic level, i.e., lower division, upper division or graduate level.

- *Include* only the hours you spend in the class, lab or field personally teaching courses for which academic credit is given.
- *Do not include* hours when you do not personally meet with students, e.g., when teaching is conducted by a TA and you are not present.
- *Do not report* any hours giving independent or special study courses (which should be reported in Q 8 above).

☐ **Does not apply, have no regularly scheduled classes this quarter**

	Lower	Upper	Graduate	Total
No. of weekly hours of regularly scheduled classes	_____hrs.	_____hrs.	_____hrs.	_____hrs.

Your Time Diary FOR: _____ , _____

IMPORTANT: Enter number of hours or rounded quarter hours below. The time in each column should add to the printed totals at the bottom. If any of the time reported for items IIA, IIB, III, IV and V also contributes to Instructional Activities, record overlap time in the brackets in the shaded rows.

	midnight - 6 am	6 - 8 am	8 - 10 am	10 am - noon	noon - 2 p.m.	
I. INSTRUCTIONAL ACTIVITIES ★						
DIRECT STUDENT CONTACT ★A. Regularly Scheduled Course Instruction (include lab and field work personally taught, and giving examinations)						
B. Non-Credit Courses, Seminars, Colloquia and Symposia						
C. Supervising Independent / Special Study						
D. Student Advising						
E. Giving Oral Examinations						
F. Course Preparation						
G. Other Instructional Activities (See examples)						
I. TOTAL INSTRUCTIONAL ACTIVITIES (add A - G)						
II. RESEARCH / CREATIVE ACTIVITIES (See examples)						
A. Original Research / Creative Activities						
Time, if any, also related to Instructional Activity	( )	( )	( )	( )	( )	(
B. General Scholarly / Creative Development						
Time, if any, also related to Instructional Activity	( )	( )	( )	( )	( )	(
III. UNIVERSITY SERVICE (See examples)						
Time, if any, also related to Instructional Activity	( )	( )	( )	( )	( )	(
IV. PROFESSIONAL ACTIVITIES / PUBLIC SERVICE (See examples)						
Time, if any, also related to Instructional Activity	( )	( )	( )	( )	( )	(
V. OTHER: Non-UC Work, Private Consulting, Leisure, Sleeping, etc.						
Time, if any, also related to Instructional Activity	( )	( )	( )	( )	( )	(
TOTAL HOURS	6	2	2	2	2	

The diary was an eight-page booklet which included two double-page spreads, one for the first day requested, and one for the second. As in the questionnaire, when weekend time was requested, the spread included one 48-hour time span. Except for what is usually sleeping time for most people, time was recorded in two-hour segments for weekdays, and four-hour segments for weekends.

The examples shown at the right also appeared in the bookmark accompanying the questionnaire.

★ Count a 50 minute course as 1 hour; 80 minutes as 1-½ hours, etc. If you teach a course jointly, or with a TA, record total hours you personally were present in either class, lab or field.

4 - 6 pm	6 - 8 pm	8 - 10 pm	10 - 12 pm	Transfer to Summary Sheet in Questionnaire TOTAL	
					A.
					B.
					C.
					D.
					E.
					F.
					G.
					I.
					II A.
( )	( )	( )	( )	( )	
					II B.
( )	( )	( )	( )	( )	
					III.
( )	( )	( )	( )	( )	
					IV.
( )	( )	( )	( )	( )	
					V.
( )	( )	( )	( )	( )	
2	2	2	2	24	

Some Examples of Activities to be Recorded Under:

I. G. OTHER INSTRUCTIONAL ACTIVITIES
- Preparing exams
- Grading papers and exams
- Conferences with TAs
- Writing letters of recommendation
- Reading theses and dissertations
- Informal or committee discussions re teaching, curriculum, etc.

II. A. ORIGINAL RESEARCH / CREATIVE ACTIVITIES
- Creation of art or new knowledge; e.g., scientific experiments, dramatic or musical compositions, painting, field work (not part of a course)
- Writing or publishing articles and books
- Supervising research staff
- Contact with student research assistants
- Developing project proposals and fund applications
- Reading journals and other literature, viewing art, attending concerts, etc., *where these have a direct bearing on original research or creative activities*
- Exchange of research ideas with colleagues
- Musical, dramatic or dance rehearsals for your own (not student) performances
- Practice for athletic events (physical education faculty only)

II. B. GENERAL SCHOLARLY / CREATIVE DEVELOPMENT
- Reading journals and other literature, viewing art, attending concerts, etc. *for purposes of general scholarly development*
- Maintaining skills required for creative work, e.g., practicing musical instruments

III. UNIVERSITY SERVICE
- Dept. administrative or committee duties
- Serving on Academic Senate committee
- Interdepartmental administrative duties
- Campus administration
- Participating in student organizations
- Other U.C. committee work

IV. PROFESSIONAL ACTIVITIES / PUBLIC SERVICE
- Serving as journal referee or editor, reviewing manuscripts for publication
- Administrative or other official capacity in a professional society
- Attending meetings and other work for professional societies
- Participation in evaluative procedures of other universities and research institutes
- Public service — campus and local community, state agencies, federal agencies, foundations
- Professional colloquia

V. OTHER
- Non-UC work, private consulting, leisure, sleeping, etc.

The diary included this set of instructions to help respondents enter their time accurately.

General Instructions for Completing Questionnaire

We have designed this study to obtain a two-day summary of activities from a broad cross-section of faculty. Each respondent is requested to complete his or her time budget for a specific two-day (or one day plus weekend) time period. The time periods have been assigned in a systematic way so as to obtain a representative picture of faculty time allocations over all weeks in the quarter. Therefore, it is most important that you complete the summary report only for the days specified — *do not substitute* other days — even if you were assigned a weekend or a holiday, or if you happened to be sick, out of town, or involved in any other out-of-the-ordinary activity.

Please report your time as accurately as possible. Use of the diary should help you keep realistic time estimates. Crude estimates, based on memory alone, can result in exaggerated time allowances. Overestimates of faculty time-use will only reduce the credibility of the study findings. If you decide not to use the diary, please consult your calendar or appointment records and check with your secretary in order to recall as precisely as possible how you spent your day.

Overlapping categories. Faculty sometimes engage in activities that can be classified under more than one of the categories listed. In cases where time spent on activities in categories IIA, IIB, III, IV or V also contributes to "INSTRUCTIONAL ACTIVITIES" (category I), this overlap time should be recorded in Questions 2 and 5 within the bracketed space provided. For example, if part or all of the original research you did on the day in question relates to your teaching, you should enter all your original research time under category IIA and enter that estimated portion which contributes to your teaching in the brackets beside category IIA. Space to record overlapping time has only been provided for cases where the overlap relates to "INSTRUCTIONAL ACTIVITIES". If one non-instructional activity, such as "Original Research / Creative Activities", contributes to another non-instructional activity such as "PROFESSIONAL ACTIVITIES / PUBLIC SERVICE", the time should simply be recorded in the activity you consider most important to you.

Only you can report on your time. Because you are part of a probability-based sample carefully designed to assure representativeness, no one else can substitute for you. Therefore, your questionnaire should not be given to another faculty member to fill out, even though you may feel his or her professional activities are similar to your own.

Do not report your time "in advance," even though you feel you already know what you will be doing on your assigned report days. The survey is designed to collect activity data on the *actual rather than the anticipated time-use* of faculty. Therefore, we urge you to complete your time report at the end of the assigned days.

Commuting time between home and campus should be included in category V, "OTHER ACTIVITIES," unless you systematically schedule all or part of this time for course preparation, original research, etc. (e.g., reading research drafts while riding a bus, dictating lecture notes to a recorder while driving).

Travel time to and from classrooms, labs, administrative offices, etc. should be included under the appropriate activity category. For example, the time required to walk to a different building for an administrative meeting of the faculty should be reported under "UNIVERSITY SERVICE" (Category III). Similarly, if you were walking to a seminar where your original research will be discussed, the time required should be reported under "Original Research / Creative Activities" (Category IIA).

Field supervision. Some faculty in certain schools and departments, e.g., social work, clinical psychology, education, are responsible for the supervision of students in the field. Time spent *personally* supervising UC students in field placements should be reported as an instructional activity under category I-A "Regularly Scheduled Course Instruction" which includes class, lab and field instruction.

When fine arts faculty evaluate their students through auditions or dramatic readings as part of the final grading process for a course, time spent should be reported under category I-A "Regularly Scheduled Course Instruction" which includes giving course examinations. When the auditions or readings are *not* for such grading purposes, but rather for placement or selection purposes, time spent should be reported under category I-E "Giving Oral Examinations." If the evaluation does not involve personal contact with the student — i.e., in cases where the professor evaluates an art student's portfolio — time spent should be reported under I-G "Other Instructional Activities."

Activities of fine arts faculty may present special classification problems. Attendance at cultural events which, for other faculty would be purely a personal activity, could be an activity of "General Scholarly / Creative Development" (Category IIB) for faculty teaching playwriting, painting, music, etc. In these cases, use your best judgment as to which of these activities to include.

We would like your comments on how we can improve this survey in the future. We have reserved space at the end of the questionnaire for these comments, and for your notations on any aspects of your activities which you feel are not adequately reflected elsewhere.

As we stated in our letter, your answers will be kept confidential. Your questionnaire is identified by the serial number that appears on the last page. The link between respondent names and serial numbers is kept in the Project Director's locked file at the Institute for Research in Social Behavior and will be destroyed once all the data are in.

A summary of the final report will be published in the University Bulletin. *Copies of the full report will be available at each campus.*

Dear Faculty Member,

We are sending this card to inform you that you have been included in a sample asked to participate in the UC Faculty Time-Use Study. An envelope containing your survey forms has been sent to your campus address today. Since the study asks about activities during the next few days, we urge you to pick up your forms at your earliest convenience.

If, after looking over the material, you have any questions, please don't hesitate to call me. Thank you very much.

Dean I. Manheimer, President

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The above postcard was sent to each respondent's home.